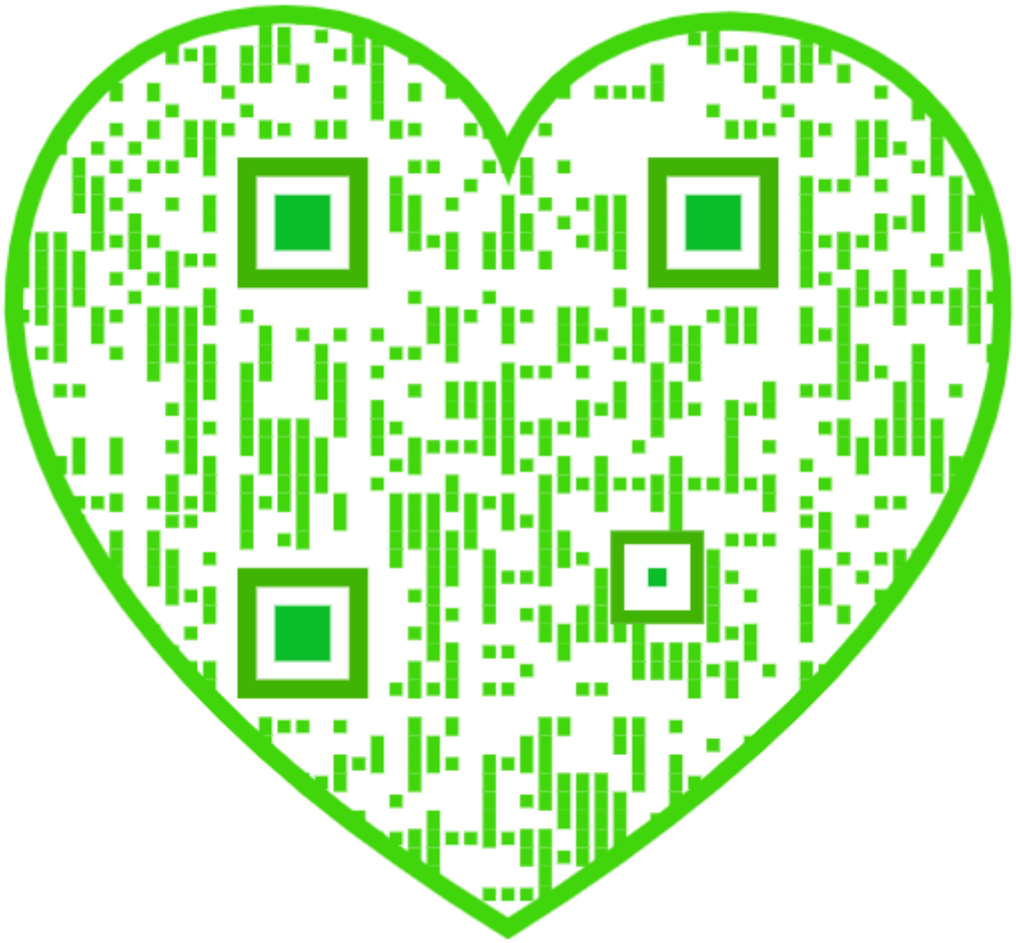

MUSICAL INSTRUMENTS

AND THEIR HOMES

BY

MARY E. BROWN AND WM. ADAMS BROWN

WITH

TWO HUNDRED AND SEVENTY ILLUSTRATIONS IN PEN AND INK
BY WM. ADAMS BROWN

THE WHOLE FORMING

A COMPLETE CATALOGUE OF THE COLLECTION OF MUSICAL INSTRUMENTS
NOW IN THE POSSESSION OF MRS. J. CROSBY BROWN
OF NEW YORK

NEW YORK
DODD, MEAD AND COMPANY
1888

KB

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To the One

WHO HAS NOT ONLY GIVEN THE TRUE KEYNOTE TO OUR
HOME, BUT WHOSE FIRM YET GENTLE TOUCH
HAS RESOLVED ALL ITS TRANSIENT
DISCORDS INTO HARMONY,

This Book

IS AFFECTIONATELY DEDICATED BY
HIS WIFE AND ELDEST SON.

PREFACE.

THE present volume consists of two parts, distinct, yet complementary. The first is a complete catalogue of the collection of musical instruments in the possession of Mrs. John Crosby Brown of New York, consisting of a drawing and description of each of the two hundred and sixty-six specimens in that collection. To this catalogue has been added a series of explanatory essays on subjects connected with the music and musical instruments of savage and Oriental peoples. The history of European instruments has often been treated by competent authorities. But no comprehensive work on the musical instruments of the East and of savage races has yet appeared. Special subjects, indeed, have been treated with great learning and fulness. But such monographs, as a rule, are inaccessible to the general reader. The sections devoted to the musical instruments of different countries in the general histories of music, are of very unequal value; some going into unnecessary detail, while others are superficial and unsatisfactory. The magnificent work of Hipkins and Gibb, on "Musical Instruments, Rare, Historic, and Unique," devotes only nine of its fifty plates to extra-European countries. The best single volume on the subject in question is still Engel's "Catalogue of the Musical Instruments in the South Kensington Museum." But this work, while indispensable to the student, is not adapted for general use. In the very nature of the case, the treatment lacks unity, and many of the most important points are passed over without notice.

The present book, while far from claiming to give an exhaustive account

of all the musical instruments of Oriental and savage races, aims to put within the reach of the general reader the most important facts connected with this interesting subject.

In the plan of the work as originally conceived, the composition of the letterpress was undertaken by Mrs. Brown, while the present writer was to be responsible only for the drawings and the accompanying descriptions. The following words, written by Mrs. Brown as a preface, six months ago, will explain at once the origin of the book and its design as first contemplated : —

"Some years ago I became very much interested in the subject of musical instruments, and a friend kindly procured for me from Florence two or three fine old specimens. To these, others were added from time to time, until I found myself really aspiring to make a collection, in which the more important instruments of the different countries of the world should all be represented. With the growth of this collection came naturally a desire for definite information both as to the instruments themselves, and the music of the countries from which they came. Finding that no *one* book contained the desired material, I was forced to gather it from many scattered sources, — volumes of travel and history, as well as of more special musical research. The results of my reading and study were embodied for my own use in a series of short papers. It has occurred to me that these sketches, designed primarily for my own reference, might be helpful to others, who, though interested in the subject, may not have the time or the opportunity to collect the information for themselves. They are fragmentary and incomplete in character, consisting largely of quotations from the best authorities, to whom full credit is given. In the words of Montaigne, 'I have here only made a nosegay of culled flowers, and have brought nothing of my own but the thread that ties them together.'

"In view of the many applications which have been made by those interested in musical subjects, for a description of the instruments in my possession, it seemed very important to prepare a careful catalogue of the

collection. Accurate drawings have been made of each instrument by my son; and it is believed that these illustrations, with the accompanying descriptions, will prove a valuable contribution to the study of the history of musical instruments, which, in this country, is still in its infancy. The most important collections of this kind in the United States — those of the National Museum in Washington, and of the Conservatory of Music in Boston, as well as the Drexel Collection in the Metropolitan Museum in New York — are still uncatalogued. It is hoped that the present volume may serve as a stimulus both to the speedy carrying out of this important work, and to the making of more complete collections, both private and national.

"I wish in this connection to express my great indebtedness to the many friends who have assisted me in making this collection, and especially to those missionaries in distant lands who have secured and forwarded many of the most valuable specimens, often at great expense of time and trouble. I desire also to express my obligation to my friend Miss Ella Russel, who has not only assisted me in my musical studies, but who has been their real inspiration."

Since these words were written, it has been found necessary in some respects to modify the original plan of the book. Circumstances having rendered it impossible for my mother to continue the preparation of the sketches above referred to, the completion of the letterpress as well as of the illustrations fell into my hands. As the work progressed, I became convinced of the advisability of a somewhat more comprehensive and careful treatment than had at first been contemplated. I was obliged, therefore, largely to re-write the earlier chapters, in order to make them conform to the method of treatment employed in the latter part of the work.

It is believed that the book in its present form will fill a useful place in musical literature. It does not lay claim to the merit of original research, the time and circumstances of the writer having rendered this impossible. At the same time, all accessible authorities have been conscientiously consulted; and a free use has been made of several manuscript sources, of

which special acknowledgment will be made in the proper place. For the convenience of those who may desire for special purposes to verify any of the statements made in the text, full references have been given in foot-notes; and a complete list of authorities quoted has been added at the back of the book. It has been the aim of the writer to make more than a mere compilation. While for convenience the separate chapters have been arranged in sets corresponding to the divisions of the catalogue, it will be found that they form by themselves a connected whole. For a reason which has already been explained, the subject of European instruments has been passed over in silence. The musical instruments of the ancient Assyrians, Egyptians, and Hebrews, as well as of the Greeks and Romans, have likewise been passed by without notice, as not properly falling within the scope of the present work. With these exceptions, the writer has aimed to give some account of the principal musical instruments in use the world over, — particular attention being given to those specimens which are represented in the catalogue. A brief account of the character, history, and place of music in each of the more important extra-European countries, has been given in a special chapter.

An additional word of explanation is needed as to the chapters on savage music and musical instruments. The interest and importance of this subject are so great, that I need not apologize for devoting to it considerable space. In the chapter on savage music, I acknowledge my special indebtedness to Mr. J. F. Rowbotham, who has brought together in the first volume of his "History of Music" a vast number of suggestive examples, in illustration of the ingenious theory there developed. In the later chapters I have relied more upon my own independent reading. The chapter on the instruments of North America especially contains a considerable amount of information which has never before appeared in print.

The drawings of the catalogue were originally undertaken solely for private use, and without any idea of publication. As they were made at different times during a period extending over more than three years, there

are necessarily many inequalities in the accuracy and the artistic quality of the work. Such corrections as were possible have, however, been faithfully made. Not a few of the instruments have been redrawn specially for the book. Slight inaccuracies in the representation, which could not otherwise be corrected, have been noticed as far as possible in the accompanying description.

It has not been possible to follow any uniform system in the spelling of names. Whenever possible, I have used the anglicized form given by Engel, adding in parentheses the more exact spelling. In very many instances, however, where the instrument is not mentioned by Engel, I have been forced to rely upon the best authorities at my command. In conflicting cases, I have regularly employed the simpler form. Thus, in the case of Hindu names, I have preferred the forms given by Meadows Taylor to those of Fétis or Tagore. In many instances I have taken the spelling given in the written label accompanying a special instrument. Cases where verification was doubtful have been noticed in foot-notes. In not a few instances it has been impossible to assign any name.

No one can be more conscious than the writer of the imperfect quality of his work. The inherent difficulty of the subject, the impossibility of obtaining accurate information on many conflicting points, and, above all, the limited time at his disposal, must stand as excuse for all shortcomings.

In addition to the general acknowledgments made by Mrs. Brown, I desire to express my special indebtedness to the many friends who have kindly assisted me in my work. Many of the facts stated have been drawn from letters received from all parts of the world, which it is impossible to acknowledge in detail. I wish, however, particularly to express my obligation to the Rajah Sourindro Mohun Tagore of Calcutta, India, for kindly furnishing me with copies of his valuable treatises on Hindu music; to Takenobu Kikuchy of Japan, for the use of a manuscript paper on "Japanese Instruments of Popular Music;" to Dr. Robert O. Sweeny of St. Paul, Minn., for valuable information in reference to the music and instruments of

the Dakota Indians; and to Professor Albert S. Bickmore of the American Museum of Natural History in this city, for kindly giving me access to the unpublished catalogue of the Emmons Collection of Alaskan curiosities. I desire also specially to thank my friend Mr. Gaylord S. White, for valuable help in the verification of references, in the making of the index, and with the proofs.

WM. ADAMS BROWN.

New York, November, 1888.

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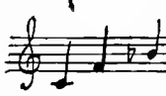
Catalogue of Musical Instruments

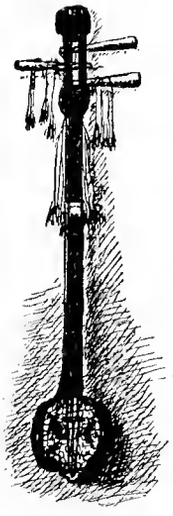
CHINA.

China

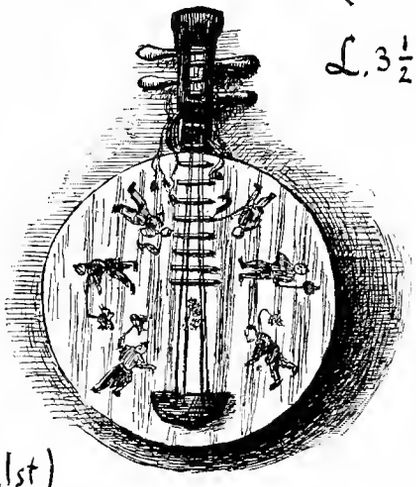
1. San-Heen (San-Hsien) - or three stringed guitar. The head covered with snake skin on both sides. Tuned in two fourths.



L. 3½ ft: Diam. 6 in.



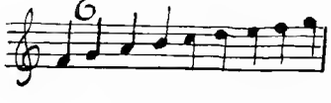
2. Yue-Kin (Yuek-ch'in) - or "Moon Guitar". The four strings are tuned in pairs at the interval of a fifth



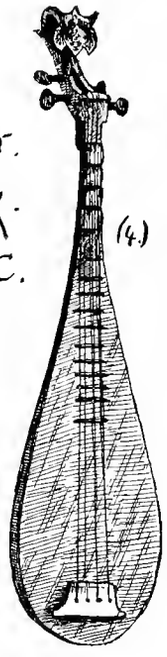
L. 24 in; Diam. 14 in.

3. Sona (van Aalst) or Heang-Teik (Engel)

A favorite instrument among the common people - especially at marriage entertainments and funerals Has an exceptionally shrill and piercing sound Following is its scale

L. 13 in.

4. Pepa (P'i-p'a) - or "Balloon Guitar."

A very old specimen, brought to the island of Jersey by an English officer. L. 3 ft; W. 9 in.; Greatest Thickness 2 in. Strings tuned C, F, G, C.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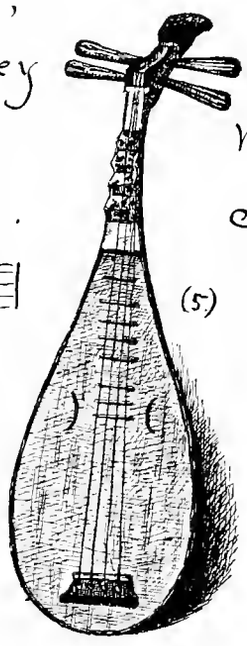
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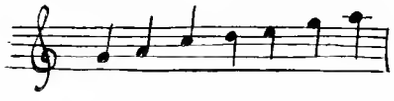
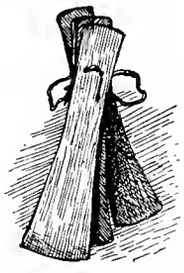
5. Pepa - second specimen

L. 3 ft; W. 12½ in Th. 2½ in

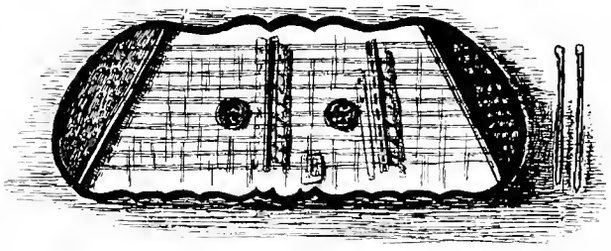
6 Kin (Ch'in) or Scholar's Lute. Made of wood lacquered. Has seven silken strings tuned

L. 4. ft; W. 8 in.

7. Pai-pan, or Castanets Two slabs of red wood, attached together by a silk cord, on which a third slab of the same kind is struck to beat time.



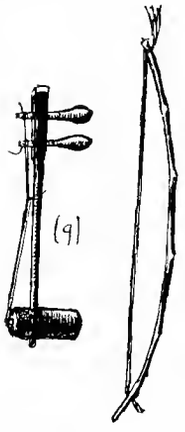
L. 11½ in. Greatest Width 2½ in.

8. Yang-Kin, or "foreign harpsichord."

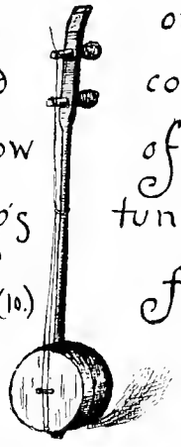


Strung with 14 sets of wire strings, three in a set.

Played with two light slips of bamboo. L. 2 ft. 8 in; W. 11 in.



9. Ur-Heen (Chr.-hsien), or "two stringed violin" Head covered with snake skin Bow of bamboo and horsehair. Strings tuned at the interval of a fifth. L. 18 in. Diam. of head 2 in. L. of bow 29 in.

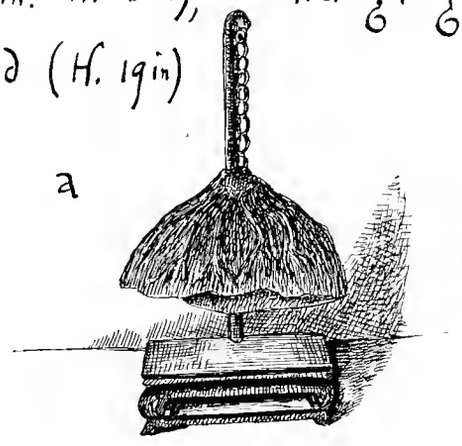


10. Ur-Heen - second specimen. Head of wood. L. 22½ in; Diam of head 3½ in.

11. Pang-Kou - a small drum, resting on a wooden tripod. Beaten with wooden drum-sticks. D. 11½ in. Height of stand 2 ft, 6 in.

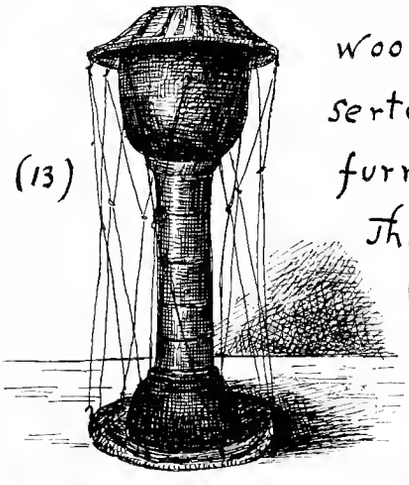
12. King, or "sonorous stone" A small specimen (W. 11½ in. H. 6 in), hanging from a frame of wood (H. 19 in)

13. Thai-pang-kou, a Kind of drum.



H. 2 ft.
D 11 in.

14. Cheng (shêng) or Mouth-organ. Body of wood, into which are inserted 17 wooden pipes furnished with reeds. The notes are formed by stopping the holes with The fingers Following is the scale.



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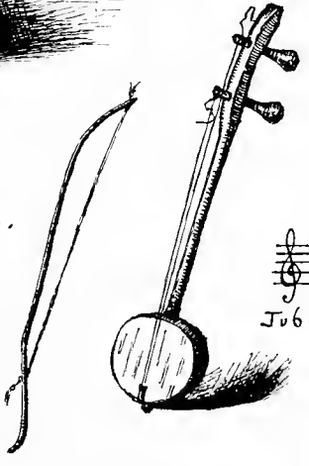
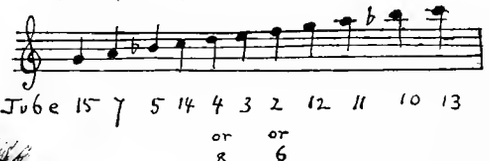
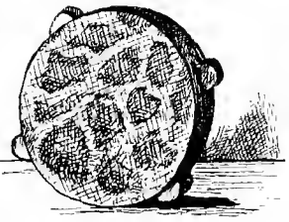




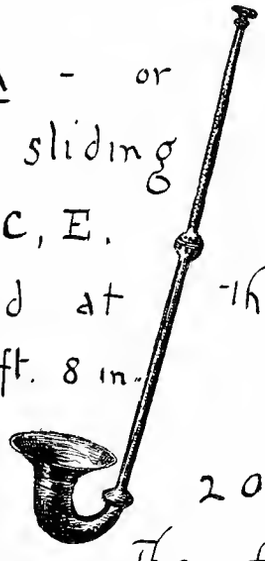
15. T'i-ch'in, a variety of Ur-Heen. The body of cocoanut shell. L. 26 in; D 5½ in. L. of bow 21 in.

L. 16½ in; D. 3. in.

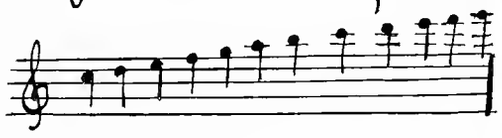
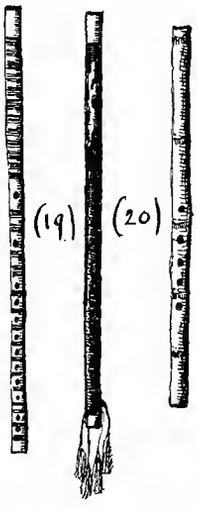
16. Chî-sian - Tambourine The head covered with snake skin. D. 9½ in.

17. Hai-lo,  or "Conch Trumpet," used principally by soldiers and watchmen. L. 10½ in.

18. La-pa - or Trumpet Has a long sliding tube Gives four notes, C, G, C, E. This particular variety is curved at the end, and called Cha-chiao L. 2 ft. 8 in.



19 and 20. Ti-tzu - Flute The first of bamboo bound with cords - the second of wood lacquered

Scale:-



L. of 19 2 ft. 5 in

(21)

L. of 20 2 ft. 2 in.

21. Pi^{n}-a - Flute L. 24½ in

MUSICAL INSTRUMENTS AND THEIR HOMES.

I.

CHINESE MUSIC.

"IN Brande's Dictionary of Arts and Sciences," says Mr. Elson, "the whole fabric of Chinese music is swept away in one short sentence, at the close of which the compiler curtly says, 'We ought, perhaps, to apologize for saying *so much* of it.'[1] No right-minded and just reader," Mr. Elson goes on to say, "will echo so flippant an opinion: a nation which more than four thousand years ago had studied music as an abstract science, and which understood the laws of musical proportion centuries before Pythagoras was born, certainly deserves more than a passing notice from the musical historian, no matter how barbarous its present music may seem."

It is proposed in this chapter briefly to consider Chinese music, its character and its history, and to try to discover whether the subject be indeed as hopeless as most Europeans are apt to suppose.

The Chinese, as a nation, delight in what appeals to the senses,—vivid color, original form, and striking sound. Their music, therefore, is characterized by little of the spiritual. "To the Chinese, mere sensuous delight in tone presents such attractions, that their musical system is occupied mainly with the analysis and classification

[1] Curiosities of Music, p. 114.

of the different qualities of Sound, and only secondarily with those sequences of Sounds which we call Notes."[1]

The same tendency appears also in other branches of their art. Thus, in their painting, they lay great stress upon brilliancy of color and general effect, and comparatively little on correctness of outline and accuracy of detail. As the latter art has been called a play with color, so their music may be described as a fanciful play with sound.[2] The Chinese are skilful in all species of manufacture, and their dexterity and originality are shown in their musical instruments as well as in other directions. Their instruments have many strange forms; such, for instance, as birds' eggs, writing-tablets, and even tigers. Many of them are richly carved, and ornamented with streamers, tassels, and canopies. Indeed, they seem designed to gratify the eye with their form and color, quite as much as the ear with their tones.[3]

The musical history of the Chinese carries us back to days of remote antiquity. Even in the very earliest times they are said to have made thorough investigations in the science of music, but in "that inventive inspiration which is the soul of art"[4] they have shown themselves lamentably deficient. In their inability to supplement knowledge by execution, in the outrunning of the speculative over the practical faculties, we see a touch of the real character of "the people who were acquainted with gunpowder but never invented a gun, who knew of the polarity of the magnetic needle and yet never thought of employing it as a compass."[5] Up to a certain point, they succeed in mastering all knowledge of a subject that can be acquired by industry and observation. Beyond this, however, even in an art like music, they cannot go.[6]

The Chinese, as well as the Greeks and other ancient nations, speak of the mysterious influence of music. One of their writers

[1] Rowbotham: History of Music, vol. i. p. 285. [2] Ibid., p. 309. [3] Ibid., p. 310. [4] Elson, p. 114.
[5] Rowbotham, i. p. 301. [6] Naumann: History of Music, ed. Ouseley, vol. i. p. 10.

declares that it has its cradle in the heart of man. It is the essence of the harmony existing between heaven, earth, and man.[1] With the Chinaman, therefore, music is closely associated with religion. "The Chinese," says Naumann, "builds his world upon the harmonious action of the heavens and earth; regards the animation of all nature, the movement of the stars, and the change of the seasons, as a grand 'world music,' in which every thing keeps steadfastly in its appointed course, teaching mankind thereby a wholesome lesson."[2] He associates his music, therefore, with virtue and morality. The different notes of the scale represent to him moral precepts. Confucius himself is reported to have said, "Music gives a finish to the character, which has first been established by rules of propriety." And, again, "Wouldst thou know if a people be well governed, if its manners be good or bad, examine the music it practises."[3] He himself wrote a song-book, which Rückert, the celebrated German poet, translated in the year 1833.[4] In the later days of his wanderings, when one of his disciples remonstrated with him for continuing to sing and play as usual, even in the days of his poverty and starvation, he replied, "The wise man seeks by music to strengthen the weakness of his soul, the thoughtless one uses it to stifle his fears."[5]

The Chinese base all sciences on music, and at one time the purity of its prevailing type was considered to be the test of the virtues of the reigning sovereign. Even to-day the Imperial Board at Pekin still keeps a close watch over new compositions, in order, as far as possible, to preserve the style of the ancient music.

A few facts from the traditional history of Chinese music may not be without interest. The art is said to have been invented by the Emperor Fu Hsi, 2852 B.C.[6] Those readers, however,

[1] Van Aalst: Chinese Music, p. 4. [2] Naumann, i. p. 8. [3] Ambros: Geschichte der Musik, i. p. 517.
[4] Naumann, i. p. 10. [5] Elson, p. 125. [6] Van Aalst, p. 4.

who are sceptical as to the accuracy of this statement, may adopt without fear of contradiction their own theory of its origin.

According to Van Aalst,[1] the first invaders of China (supposed to have come from a region south of the Caspian Sea) undoubtedly brought with them some knowledge of music. The aborigines themselves had some kind of musical system, and the one was grafted upon the other. At first music was not regulated by any fixed laws; but each emperor had his own system, which did not always agree with that of his predecessor. Beginning, however, with Huang Ti, or the Yellow Emperor, the Chinese King Alfred, about 2700 B.C., music assumed its characteristic form. A certain note was taken as the base; various musical intervals were fixed, and received names. Music is said to have become a necessity of the State, and a key to good government. This supposed connection of music with the State is shown by the names of the notes of the oldest musical scale. The lowest note, F, was called Emperor; G, prime minister; A, loyal subjects; C, state of affairs; D, mirror of the world, etc.[2]

In the year 2284 B.C., a certain Kouei was appointed censor of music by the Emperor Shun (Chun), and the instructions he received from the latter are certainly very sensible. "Music should follow the sense of the words." "It should be simple and unaffected." "Music is an expression of the soul of the musician."[3] It is extremely difficult for us now to realize that such directions were ever applied to Chinese music.

Many interesting stories have been preserved concerning the power of the early musicians. Kouei himself, a thousand years before the assumed era of Orpheus, said, "When I play upon my King, the animals range themselves spell-bound with melody before me." Of another performer we are told, that "his music was so sweet, the very stars of heaven drew near to listen."

[1] Van Aalst, p. 4. [2] Naumann, i. p. 8. [3] Elson, p. 122.

This idea of the effect of music on the beasts and the stars corresponds closely with similar ideas which we meet with later in India and Greece.

The Great Shun, about 2255 B.C., composed the piece called "Ta Shao." This melody is said to have so delighted Confucius, sixteen hundred years later, that for three months "he did not know the taste of meat," saying he was not aware composers could reach such a pinnacle of perfection.[1] Unfortunately, of this ancient music nothing now remains but the most abstruse theories.

It is probable that the early Chinese music, like that of the Greeks, was chiefly employed in regulating the movement of dances and song. Indeed, the idea still continues, that music without poetry is not music at all.[2] In spite of this fact, however, there is very little variety in the rhythm employed by the Chinese, and the even measure in which most of their melodies are composed sounds monotonous to our ears. "Their sense for uncouth rhythm may, perhaps, partly explain their predilection for instruments of percussion, a preference for which is always indicative of a low musical organization, while a love for stringed instruments evinces a higher order of mind."[3]

The year 246 B.C. marks the most important date in the history of Chinese music. In this year the Emperor She Huang Ti ordered all books to be destroyed, excepting those on medicine, divination, and agriculture. Musical treatises and instruments shared the common fate. In proclaiming this edict, he gave as his reason, that these ancient books, etc., were not suited to the times, and their study caused people to neglect agriculture, which he considered the only substantial basis for the happiness of a nation, and thus gave them leisure to censure the reigning sovereign, and consequently fostered disobedience and rebellion. After this wholesale destruction, a long night of ignorance rested on the country,

[1] Van Aalst, p. 4. [2] Van Aalst, p. 5. [3] Naumann, i. p. 12.

and little or nothing survived of the ancient music but the noise of tinkling bells and dancers' drums.[1]

Under subsequent dynasties, some old books and instruments were discovered, and great efforts were made to regain that which had been lost. Though the position of music was afterwards re-established, we meet many complaints from the writers of that era, about 140 B.C., to the effect that the art of regulating the heart, as they expressed it, by its means, was irretrievably lost, and that it only served to inflame the baser passions.

Père Amiot tells us that in the eleventh or twelfth century Tsai-yu studied deeply to place music upon a secure footing, and his researches into the proportions of tones are said to have led him to the same results that were *afterwards* discovered by the best acousticians of Europe.[2] If this be indeed true, we can only regret that his discoveries did not have more practical effect upon his fellow-countrymen.

A strange change has taken place in the ideas of this people, who are supposed to be so unchangeable. The musical art, once held in such honor, is now deemed the lowest calling.[3] Professional musicians are looked upon with contempt, and their ranks are recruited from the poorest classes. But we must not, therefore, imagine that the people no longer care for music. The ceremonies connected with birth, marriage, and worship are all accompanied by music, though respectable Chinese do not consider it dignified to perform in person, even as amateurs. The streets are full of bands, mostly composed of blind men, who offer their services from house to house.

Although several attempts have been made to introduce European music into China, they have all failed; and the Chinese pity us for what they consider our inferiority, for they believe their music to be the first in the world. Père Amiot, who was a very

[1] Van Aalst, p. 5. [2] Elson, p. 135. [3] Van Aalst, p. 6.

fair performer upon the flute and the clavichord, once asked some Chinese musicians how they liked European music. They answered in their most polite way, that "Western melodies were not made for their ears, nor their ears for Western melodies."[1]

THEORY OF CHINESE MUSIC.

According to the Chinese, music rests upon two fundamental principles, — the spiritual, or immaterial, principle, represented by the sound or essence of music; and the substantial, or material, principle, represented by the instruments themselves.[2]

Their first step in the science of musical acoustics was the discovery of what they call the *Lus*, which they consider the basis of all their music. These are a series of tones, twelve in number, nearly identical with our chromatic gamut. The history of the *Liis* runs back into the age of fable. It is probable that the division of the octave into twelve notes was suggested by the combination of twelve pieces of bamboo of different lengths. The name *Lii* was originally applied to these twelve tubes, the longest of which measured nine inches; but the term is now used to designate not only the instruments, but the notes which they produce. Various causes have been assigned for this division. It is possible that it was suggested by the different tones in the voices of men and women; in the songs of birds, as of the magic Fêng, a sort of phœnix, and its mate Hoang, or even in the roll of the waves of the Yellow River.[3] Fable tells us that the discovery was made by Ling-Lun about B.C. 2500, perhaps accidentally, as he was cutting and experimenting with pieces of bamboo.

At first, the *Liis* were carefully selected pieces of bamboo; but afterwards they were made of copper, of marble, or even of jade,

[1] Elson, p. 138. [2] Van Aalst, p. 5. [3] Van Aalst, p. 7.

materials less affected by atmospheric changes. The tubes were all of the same thickness and diameter, but of different lengths, and were closed at one end. The original *Lüs* were never used for playing, but only for regulating instruments, and giving a uniform pitch to their music. It may be well to mention, in this connection, that the pitch now in use in China is considerably higher than our own.

In spite of the early date assigned by Chinese musicians for the discovery of the *Lüs*, only five notes of the scale were in general use before B.C. 1300.[1] These corresponded to F, G, A, C, and D of our scale.[2] Afterwards the two notes E and B were added. Chinese theorists speak of this period as the beginning of the decadence of their musical system. Naumann tells us that "the enlargement of the scale from five to seven tones was owing to the insertion of the two half-tones E and B, which were called 'leaders' and 'mediators.'" "These appellations," he continues, "proceed from a very fine musical instinct, as indeed E and B are 'leaders' to F and C; and they possess, also, for the modern cultivated ear, the quality of resolving themselves into the half-tone above, acting at the same time as mediators, and filling up the void between D and F, A and C."[3] The scale formed by the insertion of these two notes is as follows: F, G, A, B, C, D, E, F; or if we follow Van Aalst,[4] and assume C as corresponding to *Kung*, or the keynote, C, D, E, F♯, G, A, B, C. This differs from our scale in that the first half-tone falls between the fourth and fifth, instead of the third and fourth notes. With the rise of the Yüan dynasty in the fourteenth century, the invading Mongols introduced into China a new scale and system of notation. The latter, being simpler than that in former use, found favor with the Chinese; but the Mongol scale, in which the position of the half-tones corresponded to that in our own, created no little confusion.

[1] Van Aalst, p. 14. [2] Ambros, i. p. 514. [3] Naumann, i. p. 9. [4] Van Aalst, p. 15.

Kublai Khan, indeed, endeavored to obviate the difficulty by introducing a scale of eight distinct tones, in which both F and F♯ should have a place; but such a device naturally had little result. In the fifteenth century the Chinese returned to their original pentatonic scale (F, G, A, C, D),[1] to which, in spite of one or two attempts to revive the old Yüan scale, they have been faithful ever since.[2]

Theoretically, indeed, we find a vast variety of combinations in Chinese music. The books recognize no less than eighty-four scales,[3] each one of which has some philosophical signification. In practice, however, as has been said, the Chinese use only the pentatonic scale. They never trespass beyond the limit of fourteen sounds, finding within this compass an immense variety of tunes, to which Chinese ears alone can become accustomed.[4]

The music of the Chinese, like their language, is written in vertical rows of characters from right to left. The keynote is indicated by stating to what *Lii* the piece corresponds. The modern Chinese have a special sign for nearly every note in their melodic system. "Their characters not only express the sounds, but also indicate the pitch; that is, their position in the gamut."[4] In the case of several notes of the scale, however, there is no way of distinguishing them from their respective octaves. This defect has been partially remedied by the affixing of little signs to indicate the octave higher; but the use of this device is by no means universal.

The most serious defect in Chinese notation, however, is the lack of any sign to indicate the duration of a note. Certain arbitrary devices are indeed employed. Thus, for instance, some notes may be written larger than others, to emphasize them; or a space may be

[1] A correct idea of the pentatonic scale may be obtained by taking the five black notes on the piano, beginning with F♯ (Engel: Musical Instruments in South Kensington Museum, p. 53).

[2] Van Aalst, pp. 15, 16. [3] Naumann, i. p. 10. [4] Van Aalst, p. 17.

left between two notes, to indicate a rest; or, again, small dots may be written after certain notes, to increase their value. But no uniform system is employed. Even the best Chinese musician, therefore, can "only conjecture the general form of a written piece shown him for the first time: to be able to decipher it, he must first *hear it played.*"[1] Tunes, therefore, are learned by tradition; and so much is left to the taste of the performer, that, after a lapse of time, they become entirely altered.

"The only measure scientifically recognized by the Chinese theorists is that in four time. In practice, however, several measures are admitted, especially that in three time."[1]

Many theories have been advanced to explain why the Chinese use the pentatonic scale. Perhaps the most plausible is drawn from the fact that children instinctively raise the scale by whole tones instead of semi-tones. The Chinese, in the childhood of their national life, had the same habit, which they have not yet outgrown. The Chinese scale "being composed of irregular intervals, and having no leading notes (without which there is no possible modality), may be said to be neither major nor minor, but to participate of the two. Chinese melodies are not majestic, martial, sprightly, entrancing, as is our music in the major mode; and they lack the softness, the tenderness, the plaintive sadness of our minor airs."[2] When, however, their music is expressed in our notes, and played on our instruments, it becomes major or minor, and is less disagreeable to Western ears; but Chinese tunes so disguised are no longer Chinese.

We find a curious resemblance between some Scotch and Chinese airs. Probably the former have remnants of the pentatonic scale.

[1] Van Aalst, p. 18.

[2] Van Aalst, p. 22.

THE MUSIC OF THE PRESENT DAY.

The Chinese music of the present day may be divided into two kinds, — ritual, or sacred, music, which is passably sweet; and theatrical, or popular, music. The former is the only scientific music of China. It includes all music performed at court or at religious ceremonies.

During the summer or autumn, lucky days are chosen for the worship of Confucius and spirits of departed sages. The Emperor attends in person, or, if unable to do so, sends a prime minister as substitute. One special hymn is always sung in honor of Confucius. According to a decree issued A.D. 1743, the same words and music are always used, the only difference being a change of *Lii*, or keynote. In all great ceremonies, — the most important and characteristic of which is that in memory of ancestors, — songs are used, but no female voices are allowed. The music of this august ceremonial is entirely written in whole notes, without any change of rhythm whatever. It is rather monotonous, than distressing, to our ears. The *Lii* is chosen which corresponds to the moon at the time of the ceremony. A remarkable peculiarity of Chinese worship is a belief that the spirits in whose honor the ceremony is performed descend from heaven to receive the offerings prepared for them. The music is always accompanied by a very grave kind of dancing. "With us," the Chinese assert proudly, "all is done calmly and without precipitation." [1]

At all grand festivals, the pitch, or keynote, of the hymn is given by the stroke of the bell or bell-chime. After that the lute sounds its note, which is taken up by all the other instruments except the stone chime. That is struck after the others, in order to receive the sound and to transmit it to the second note. At the

[1] La Fage: Des Chinois, p. 269, quoted by Elson, p. 170.

end of a verse, a drum is beaten three times, and answered by a second drum, after which the bell-chime gives the note again, and the next verse begins. When the hymn is finished, the head of the *Yu*, or tiger-box, is struck once, and a stick passed rapidly along the projections of its back. It is easy to imagine that a ceremony performed during the quiet hours of the night, with all these curious and imposing accompaniments, is really well worth seeing.

In all the many festivals of the Chinese, music plays an important part. The eclipse of the moon is celebrated with more than ordinarily discordant music. This is done to frighten away the dragon which is supposed to be devouring the orb of night. On such occasions, special prominence is given to instruments of percussion.

Popular, or theatrical, music includes, besides theatrical music proper, of which I shall not attempt to speak here,[1] the performances of street orchestras and single itinerant musicians, together with all ballads and street-songs. In its performance the following instruments are used: The moon-shaped guitar, the three-stringed guitar, the two-stringed violin, flutes, clarionets, drums, castanets, etc.; all of which play, or try to play, in unison. Though little practised as a recreation in China, the popularity of music is proved by the number of musicians who parade the streets, and by the constant singing of children, servants, peddlers, and passers-by.

Professional musicians, like actors, usually belong to the poorer classes of society. The upper classes generally keep their private troops of musicians, whom they own almost as slaves. Servants possessing musical talent command far higher remuneration than those without it. All family festivals are celebrated by music. Wandering minstrels keep a mental record of the birth-

[1] For information on this subject, see the chapter in Elson on The Chinese Theatre and Dances, p. 176 *sq.*

days of every individual for miles around; and when such a *fête* occurs, the family may rely upon the appearance of the musicians without previous notice. Music is also played at funerals, though the friends of the deceased are not allowed to perform. For months after, indeed, etiquette forbids them even to touch a musical instrument.

At Pekin most of the musicians are blind. Indeed, all ancient tradition describes musicians as blind. The intellectual Chinese Prince Tsai-yu finds a reason for this remarkable tradition in the following fact. The ancient musicians, he relates, closed their eyes while performing, so that no exterior object should engage their attention; and it was from this habit that people gave them the name of blind. This is certainly a charming poetical metaphor, and the Chinese musical traditions and theories abound in such ingenious ideas. In Canton, also, most of the female musicians are blind, except those of doubtful character who live in flower-boats. When women participate in orchestral music, they do it in a manner rather astonishing to us, for they generally play the wind instruments. This singular custom of allowing the weaker sex to play the parts requiring the stronger lungs was quite universal among ancient nations. At present, however, women seldom assist at concerts; the instrumental music as well as the singing being performed almost wholly by men.

In spite of the fact that the Chinese carry their music into every department of social life, it can never make any real progress, for musical martinets are continually exclaiming against any change in the style of composition. In China, precisely as formerly in ancient Egypt, no changes are possible. The music for each and every event is as carefully prescribed and adhered to as is the cut of garments or the exchange of civilities among this precise people. The musical scale, once perfected, has been preserved by the national religion from all change, and the Chinese of to-day sing the same

melodies which were familiar to Confucius in the sixth century before Christ. The same conservatism which has hitherto refused admittance to our Western civilization has walled in their musical culture. One of the nine tribunals which have charge of the general affairs of the empire supervises the musical rites and ceremonies. The mandarins of music rank higher than those of mathematics, and have their college in the enclosure of the Imperial Palace. We are told that the library at Pekin contains no less than four hundred and eighty-two works on the subject of music alone.

It may be interesting to note, in this connection, that Amiot, Barrow, and others complain of a want of appreciation of Chinese music on the part of foreigners. The surprisingly profound combinations of this musical system deluded them into a belief that the practice of the Chinese was as perfect as their theory. Of a similar opinion was Gladisch, a German savant, who died a few years ago, who succeeded in proving the intimate connection between the oldest Chinese theories and the philosophic conceptions about music of the great Greek teacher Pythagoras.

If we ask why Chinese music does not produce a better impression upon foreigners, the natural answer is, because it is not adapted to them. First, the instruments are not constructed with the precision of European instruments; second, the melodies are always in unison, and always equally loud; and, third, the intervals of the Chinese scale, being unlike those to which we are accustomed, sound discordant to our ears.[1] The melodies are neither major nor minor, but float between the two in a way that is very distressing. Indeed, musically, as well as ethnologically and philologically, the Chinese are a series of contradictions, and differ from all our preconceived notions of right and propriety. For many centuries music has been popular among them, and yet there has been no such thing as musical progress. In the absence of

[1] Van Aalst, p. 84.

a staff, a clef, sharps, flats, rests, and signs to indicate the measure, or the length of notes, or to distinguish a note from its octave, major and minor scales, *crescendi* and *diminuendi*, harmony or parts, it is not surprising that Chinese music compares unfavorably with the music of the West.

II.

CHINESE MUSICAL INSTRUMENTS.

NEARLY every instrument known to cultured Europe has its rude prototype in China; for its catalogue embraces over four hundred different kinds, of which one hundred and fifty are still in use. These may be divided into two general classes, — those employed in religious ceremonials, which are considered sacred; and those used in popular music.

According to the Chinese, there are eight different kinds of musical sound in nature, each having a well-marked and peculiar characteristic. These are: —

First	the sound of Skin.
Second	the sound of Stone.
Third	the sound of Metal.
Fourth	the sound of Silk.
Fifth	the sound of Wood.
Sixth	the sound of Bamboo.
Seventh	the sound of Gourd.
Eighth	the sound of Baked Earth.

Man has utilized all of these substances for musical purposes, and has fashioned :—

Skin into drums.

Stone into stone chimes.

Metal into bells, gongs, etc.

Silk into stringed instruments.

Wood into castanets and vibrating instruments.

Bamboo into flutes.

Gourds into mouth-organs.

Baked earth into horns.

We shall consider the instruments under each of these heads separately.

I. INSTRUMENTS OF SKIN.

From the most primitive times the Chinese have been acquainted with instruments of percussion, in which the tanned skin of animals was the vibrating medium. In spite of this fact, however, they do not seem to have invented the drum; but the idea was probably derived by them from the natives of Central Asia. The first drums were made of baked clay. Wood was, however, employed very early for constructing the body of the instrument. While we have no authoritative evidence in the ancient writings as to the kind of wood used, tradition mentions cedar, mulberry, and sandal-wood.

The Chinese name for drum is *Kou*. No less than eight different kinds are found, varying in minute points of construction, as in having a longer or a fuller barrel, or in general shape, or even in the method of beating. The Chinese drums differ from our European instruments in that the heads are fastened on by nails, and cannot, like ours, be changed in pitch by the tightening of braced cords. They are generally very richly and grotesquely ornamented, even to the stands upon which they rest.

It is not necessary to describe in detail each of the eight varieties, but a few of the most important may be mentioned.

The *Ying Kou* is a large drum, suspended perpendicularly in a frame by four rings, and beaten on the upper surface with two sticks. Another large drum is the *Kin Kou*, five feet in diameter, and placed horizontally upon a pedestal which raises it about six feet from the ground. Both of these drums, as also the *Tsu Kou*,

— a somewhat smaller variety, not unlike the Kin Kou, — are used in the Confucian ceremonies, and are beaten responsively in the service. The *Tao Kou* has a handle passing through the barrel. Two balls are suspended from the sides, which strike against the head as the drum is twirled. Two such drums are used in the Confucian ceremonies, placed, respectively, one on the east and the other on the west side of the room. In earlier times, there was a form of Tao Kou which consisted of several drums hung together on a frame, each having but a single head, which was struck by the balls as it revolved. Such drums have, however, quite passed out of use. Still another kind of drum, called, respectively, *Po Kou* and *Fou Kou* according as it is struck by the right or the left hand, has its barrel filled with "the husk of rice, which has been beaten from the grain in a mortar." This drum, therefore, modifies the pure sound of skin by the admixture of the sound of rice, "which is a subordinate sound of nature, and does not come into the universal gamut."[1] Moreover, the head of this drum is not only tanned, but boiled for a long time in pure water. Its sound, therefore, is marvellously sweet and mellow. The drums used in popular music are of various kinds. The *Pang Kou* (see Fig. 11) is small and flat, and stands upon a slender wooden tripod. Another variety is the *Thai-pang-kou*, a species of hand drum (Fig. 13). The *Chî-sian*, or tambourine, is in common use (Fig. 16).

The Chinese use drums for various other purposes besides music, as to announce persons desiring audience, and to give the hour of the night. The itinerant vender uses a small form of the Tao Kou to make known his whereabouts. In time of war, the drum is relied upon to excite warriors to deeds of valor. Its most important function, however, is in connection with religious ceremonies. It is used by the priests to drive away evil spirits,

[1] Rowbotham, i. p. 287.

and attract good ones. In all the great temples of Confucius, the drum plays an important part, and most of the eight varieties mentioned above are specially employed for ceremonial purposes. They are generally found in pairs, one at each side of the hall of the temple, and are beaten three or more times at the end of each verse in the service. On special occasions, as during the presence of the emperor, the drums are muffled, which is done by covering the instruments with ornamented draperies of cloth, which absorb part of the sound.

II. INSTRUMENTS OF STONE.

The use of sonorous stone for musical purposes is peculiar to China, where, however, instruments of this kind are very highly esteemed. "The Sound of Stone," says Rowbotham,[1] "is extolled by Chinese theorists as one of the most beautiful of all the sounds." Its place is midway between the Sound of Metal and the Sound of Wood; being "less tart and rasping than the Sound of Metal, and much brighter than the Sound of Wood, — more brilliant and sweet than either." The Chinese use stone in the construction of several different instruments, the most important of which is the *King*, or great stone chime, which is presently to be described. The stone chiefly used for this instrument is called *Yu*. It has never been accurately analyzed, but closely resembles marble in appearance. It is probably a species of agate, into the composition of which iron is said to enter to a certain extent. The best specimens of this stone are picked up from the ground near the banks of the River See; others are found near the mountain streams and torrents of Yun-nam. It is thought that their peculiar clearness and purity of tone are due to their long exposure to the sun and to atmospheric changes. The size of the

[1] 1. p. 287.

stones rarely exceeds two feet. Those which Amiot[1] saw at the Imperial Palace were three feet eight inches in height, and were considered unique. The Yu is very hard, and is polished like agate and the precious stones. Its specific gravity is also very high, so much so that specimens which do not appear too heavy for a single man to handle require four men to move them. The different stones vary greatly in color, and, according to Rowbotham,[2] are valued quite as much for their color, as for their tone. The *timbre*, indeed, is said to vary with the color; but this explanation he considers as an afterthought. The whey-colored Yu is considered the best; then light blue, sky blue, indigo blue, light yellow, orange, dark red, and pale green, in the order named. In different centuries, however, the favorite color is said to have varied. Specimens of uniform color, without shades or streaks, are most highly prized, though those in which five colors blend are also esteemed. "The Chinese consider the Yu specially valuable for musical purposes, because it always retains exactly the same pitch. All other musical instruments, they say, are in this respect unreliable; but the tone of the Yu is neither influenced by cold nor heat, nor by humidity nor dryness."[3] Beside the Yu, there are three other species of sonorous stone in use in China.

As has been said, the most important instrument of the stone class is the King, or great stone chime, used only in court and religious ceremonies. The more modern form of this instrument, and the one now in general use, is called *Pien-King*. This consists of sixteen stones cut in the general shape of a carpenter's square, and suspended in two rows of eight, one above the other, in a handsomely decorated frame. The individual stones vary in thickness: the thicker the stone, the deeper the sound. Though the tones in the different stone chimes correspond to the twelve Lüs with the four immediately above or below, the chimes themselves

[1] Essai sur les pierres sonores, quoted by Elson, p. 146. [2] i. p. 310. [3] Engel, p. 47.

vary in pitch, some being higher than others. Even the best stones fail to give a complete octave. In carving and manipulation, they require most skilful handling, lest the pitch be affected. When out of tune, however, a stone can be either flattened by taking a thin slice off the back, or sharpened by cutting a piece from the end. The skill of the performer is shown in the degree of shading he imparts to the tones by varying the force of his blows.

The King is a very ancient instrument. According to Engel,[1] the Chinese records testify to the existence of highly prized Kings, as long ago as 2200 B.C.; and in an outbuilding of one of the temples there are still to be seen ten sonorous stones, said to have been cut three thousand years ago. In past centuries the different stones of the King were cut into curious shapes, as of animals, fishes, etc. The angular shape already mentioned was, however, the earliest, and has been retained in the modern *Pien King*, though even to-day other shapes are to be found. At one time, the art of making Kings was lost for many years; but in 32 B.C. a complete set was found in a pond where it had been thrown in the general destruction 246 B.C.[2] This has served as a model for modern instruments. There is one of these Kings in each Confucian temple and Imperial place of worship, and doubtless the Imperial palace and residences contain many of the best kind. It is, however, impossible to find a complete Pien King for sale, though separate stones may easily be obtained. Of all instruments, the Chinese claim that the King blends best with the human voice. Their chronicles teem with praises of this peculiar instrument. Confucius is said to have been thrown into ecstasy on hearing it for the first time. So highly was it prized, that two thousand years before Christ we read of musical stones being received as tribute. Their use was forbidden to any but emperors. We are, however, forced to rely on our imagination for

[1] p. 46. [2] Van Aalst, p. 48.

an idea of the mellow tones of these musical stones, which are said to be softer and sweeter than any gong or silver bell.

Next to the Pien King in importance is the *Tse King*, or single sonorous stone. This, like the stones of the Pien King, is usually cut in the shape of a carpenter's square; the side which is struck by the performer's hammer measuring two feet and a quarter, and the other side one foot and three-quarters. It is suspended from a frame by a cord passing through a hole bored at the apex. Like the other stone chimes, it is used only at religious ceremonies. It stands outside the temple, and is used to give a single note at the end of each verse in the service.[1]

Besides its use in the chimes just described, the Chinese employ stone in the construction of certain wind instruments. *Yu-ty* and *Yu-hsiao* are the names of two flutes made of this material. The object in using stone for this purpose is to avoid the change of temperature to which bamboo is liable.

The *Hai-lo*, or conch-trumpet (Fig. 17), is, for convenience, classified by Van Aalst under the head of stone instruments. Its use is principally confined to soldiers and watchmen, with whom it serves the same purpose as the bugle with us.

III. INSTRUMENTS OF METAL.

Far the most important under this head are the various bells and bell-chimes, though gongs, cymbals, and trumpets are also found. The use of bells in China dates back to the earliest ages; and we find mention of them as early as 2697 B.C., when the Emperor Hoang-Ti ordered Ling-Lun to cast twelve bells to agree with the twelve Lüs and the five sounds. The ancient bells were principally made of copper, alloyed with tin, in the proportion of six to one. Their original use seems to have been analogous to that of our

[1] Fig. 12 shows a small specimen. It is, however, of irregular shape, and is probably for private use.

tuning-fork or pitch-pipe, for which purpose they are still employed in the Confucian temples. But they very early began to be used, either singly or united into chimes, in court and religious ceremonials.

The Chinese name for bell is *Chung*. In general, we may distinguish two varieties, — those with clappers, and those without. The former were used for military and other purposes, and were called *To*. Their existence from a very early date has been clearly proved. There is on record a wish of Confucius that he might be "a wooden-tongued bell of heaven," — in other words, according to Engel,[1] "a herald of heaven to proclaim the divine purposes to the multitude;" — bells of this kind being frequently used to precede proclamations. "At present, however, the To is used only by Bonzes to mark the rhythm of their prayers."[2] To this class of tongued bells also belong the *Feng-Ling*, or wind bells, hung from the eaves of pagodas, to the clappers of which streamers are attached, which are swung by the wind. The more common and important variety of Chung, however, is without clapper, and is sounded by a wooden mallet. Bells of this kind may be seen of every size, from those weighing more than fifty tons down to the very smallest. Thus the great bell in the temple at Pekin is fifty-five feet in diameter, twenty feet high, and weighs fifty-three tons. These bells are used in two general ways, corresponding to the two varieties of King, — the first, like the *Po-Chung*, being single bells suspended in a frame, corresponding to the single sonorous stone; and the second, or *Pien-Chung*, being united into a chime of sixteen bells, tuned to accord with the Lüs, and corresponding to the Pien-King, or great stone chime. The two latter instruments, indeed, are always found together in the Confucian temples. "They are necessary, one to the other; the bell-chime sounds, and the stone-chime answers."[3]

In addition to the bells which have been mentioned, a brief refer-

[1] p. 50. [2] Van Aalst, p. 57. [3] Van Aalst, p. 55.

ence to the *Huien-Chung* may not be out of place. This was a very ancient form of bell, of a peculiar oval shape, and ornamented with raised knobs of metal, of such a character, that, by striking them successively with a wooden mallet, the notes of the entire musical scale might be obtained. The largest of these bells were about twenty inches in length. They were covered with curious and mystical figures, every one of which was supposed to have some hidden meaning. They have, however, entirely passed out of use.[1]

It is not necessary to describe at any length the *Lo*, or Chinese gong. This instrument is cast "in the shape of a platter or a Chinese straw hat with large brim,"[2] and varies greatly in size. Its use is very general, — to announce visitors, to sound retreat, to drive away evil spirits, and in time of eclipse "to frighten the heavenly dog when about to devour the moon."[2] Occasionally a number of individual Los are united into an instrument known as the *Yun-lo*, or gong chime. This is used at court, mainly on joyful occasions, and also not infrequently among the common people in wedding and funeral processions.

It is unnecessary to do more than mention by name the *Po*, or cymbals; the *La-pa*, or long-trumpet (Fig. 18), not unlike our trombone; and the *Hao-tung*, a long, cylindrical instrument, "in arrangement and form not unlike a telescope," and "having a sliding tube which can be drawn out when wanted for use."[3]

IV. INSTRUMENTS OF SILK.

Silk holds a place among the most ancient natural substances employed for musical purposes. Père Amiot has preserved for us the statement that 'silk was applied to music before it was to manufactures.'[4] The first sounds are said to have been produced

[1] Engel, p. 49.
[2] Van Aalst, p. 57.
[3] Van Aalst, p. 58.
[4] Amiot: Mémoires concernant l'histoire . . . des Chinois, vi. p. 62.

by twisting silken threads into cords, and twanging them with the fingers. Little by little men began to notice that the sound so produced gave definite musical notes. "The cords were then pegged down on a flat board, and the number of threads in each cord counted, so as to preserve the note unaltered for the future. Next the board was gradually curved to bring the strings together, and the number of strings was limited to seven."[1] The instrument thus formed was called the *Kin* (Ch'in), and is the most ancient and highly esteemed of all Chinese stringed instruments. The name *Lung-Kin* would seem to imply that the aboriginal inhabitants were acquainted with this instrument before the arrival of the present Chinese.[2]

The *Kin* (Fig. 6) is pre-eminently the instrument of the educated classes, as its name, "the scholar's lute," implies. Confucius and the sages of antiquity are said to have played it, and it is therefore considered sacred to men of letters. Its use is, however, at present confined to imperial and religious ceremonies, where it is considered very important. Six *Kins* are found in each Confucian temple, three on each side of the hall.

Three varieties of *Kin* are in use, varying considerably in size. The largest are five feet six inches long. The strings, as has been said, are seven in number, and are tuned as follows: G, A, C, D, E, G, A,—thus giving only five distinct tones. The thickest string is composed of two hundred and forty threads of silk. The *Kin* is an extremely difficult instrument to play. The mastery of each air requires months of application. This may account for the fact that at the present day it seems to be going out of general use.

Another instrument of the same species is called *Sê* (Che). This is nine feet long, and has twenty-five strings, each having a separate

[1] Rowbotham, i., p. 291.

[2] The Lung were a powerful people inhabiting a portion of north-west China. The first use of the *Kin* is probably traceable to them.

movable bridge. The Sê corresponds very closely to the Japanese *Sono-Koto* (see Figs. 1 and 3 under JAPAN). Originally, the number of strings of the Sê is said to have been fifty. It is recorded that once, when a certain Miss Su performed upon this instrument before the Emperor Huang Ti, he was so impressed by its strains, and rendered so sorrowful, that he ordered the number of strings to be reduced from fifty to twenty-five.[1] The sound of the Sê is extolled by Père Amiot[2] as superior to that of any European clavichord, and in it the sound of silk attains its highest perfection. Like the Kin, the Sê is used in the Confucian temples, where the number ordinarily to be found is four. The music for both instruments is written in the simplest manner, but the players are expected to embellish their parts to the utmost extent of their skill. In early times the Chinese connected the dimensions, the form, and the number of strings of both the Kin and the Sê, with certain principles in nature. Thus, the original length of the Kin ($\frac{366}{10}$ inches) corresponds to the number of days in the year; the original number of strings (five), to the number of elements. The upper part was made round, to represent the firmament; the lower part flat, to represent the ground. The very name "Kin" signifies "to guard from;" and it is thought to have been so called because its music was considered so pure that it checked the evil passions, and protected both player and hearer from all harm. The Chinese have, moreover, given to each position of the hand in playing some appropriate name connected with their study of nature. One is a butterfly flitting over a flower; another, a bird catching a cicada on the wing; a third, a flower floating on the water; and so on up to thirty-three positions.

We shall consider next the stringed instruments used in popular music. These are of two general classes, — the guitar class and the fiddle class. Under the first head we find three different kinds.

[1] Van Aalst, p. 62.

[2] vi. p. 60.

First, the *Pepa* (P'ip'a), or balloon guitar (Figs. 4, 5), which corresponds in outline to the harp of Pythagoras. This has four silk strings, said to represent the four seasons. It closely resembles the Japanese *Biwa*. To play it well requires great delicacy of touch, as most of the notes are played in tremolo. Second, the *San Heen* (San-Hsien) (Fig. 1), or three-stringed guitar. This has a narrow, cylindrical body covered with snake-skin, and is played with the fingers or with a plectrum. It is ordinarily made of swan-wood brought to China from Siam and Tonquin. This is a hard wood, like our cherry. Third, the *Yue-Kin* (Yue-ch'in), or moon guitar (Fig. 2), so called because the shape of the body resembles the full moon. This is sometimes strung with copper as well as silk. All three of these are popular instruments, and are never employed in connection with religious ceremonies. They are used in orchestral playing, and to accompany ballads and songs in the streets and other places, and are often played by blind people.

We find many instruments of the violin family in China. One of the most important of these is the *Hu Kin* (Hu-ch'in), which is most popular in the neighborhood of Pekin. This has a hollow, cylindrical body, the upper end of which is covered with snake-skin, while the lower is left open. The body is pierced by a long arm, to which are attached four silk strings, and the bow passes between the strings and the instrument. Sometimes the body is made of a round tube of bamboo, of wood, or of copper. It is of various sizes, the smallest having only two strings.

The *Ur-Heen* (Erh-hsien), or two-stringed violin (Figs. 9, 10), is made on the same principle, and is found all over China. The form of the body varies, sometimes consisting of only half a cocoanut-shell (Fig. 15). The strings are tuned at an interval of a fifth. The lower classes are very fond of the fiddle, as it is not difficult to learn, except the management of the bow, which requires considerable practice. Mr. G. Tradescant Lay has advanced the

theory that the Ur-Heen is the ancestor of our own violin; but the best authorities do not support this opinion, attributing the origin of our violin to India.

One more instrument remains to be described. This is the *Yang-Kin*, or foreign harpsichord (Fig. 8), the use of which is by no means peculiar to China, as it is found also in Syria, Turkey, and Egypt. This is an instrument of the zither family, consisting of a rectangular or oval box about two feet long, one foot broad, and four inches high. It has sixteen sets of metallic strings (sometimes fourteen), arranged in sets of two, three, or four to each note, decreasing in length from the base upwards. These pass over two metal bridges, and are fastened on both sides with nails. They are beaten with two light strips of bamboo; and, when well played, the instrument produces very agreeable sounds.

V. INSTRUMENTS OF WOOD.

The time of the introduction of wooden instruments is unknown, but it must have been very early. Those in use to-day are four in number.

The *Chu* is a sort of rectangular box, broader at the top than at the bottom, and beaten with a hammer from the inside. One is found in each Confucian temple.

The *Yu* is in the form of a crouching tiger, resting on a rectangular box. It is about three feet and a half long. Upon its back are projections resembling the teeth of a saw. It is used in the Confucian temples. "At the end of each strophe, the attendant strikes the tiger three times on the head, and rapidly passes his stick three times along the projections on the back."[1] It is thought by some that the tiger represents the empire of man over the animal creation.

[1] Van Aalst, p. 74.

The *Mu-Yu*, or "wooden fish," is a hollow block of wood shaped somewhat like a skull, and painted red. "It is used by priests to mark time in the recitation of prayers, when begging from door to door, or in performing their ceremonies."[1]

The *Pai-pan*, or castanets (Fig. 7), "are two small slabs of a kind of red wood, attached together with silk cord, on which a third slab of the same kind of wood is struck to beat time."[1] They are used in popular orchestras. Another kind of castanet is called *Shon-pan*, and is used in the Confucian ceremonies.

VI. INSTRUMENTS OF BAMBOO.

At first thought, it may seem strange to distinguish bamboo from wood; but, according to Chinese ideas, there is a great difference between the two substances. Rowbotham calls attention to the fact that bamboo, by its very nature, lends itself most easily to musical uses. "The hollow tubing between one knot and the other, the distance between each knot, and the proportions of the distances, the hardness of the cane, etc., all seem to invite man to blow into it; and the instruments made of bamboo were, by consequence, the earliest that were invented, and served as pitch-pipes for tuning the other instruments, especially those of silk."[2] But bamboo has a special importance in Chinese music, because the Chinese scale was founded upon the succession of sounds obtained from a series of bamboo pipes.

In spite of this fact, however, this unpractical people "were a long time in discovering that a tube pierced at different places may be made to produce as many sounds as there are holes, by merely stopping those holes, one after the other."[3] The ancient Chinese used a separate tube to obtain each musical sound. Thus we have seen that the original Lüs were obtained by a series of separate

[1] Van Aalst, p. 74. [2] Rowbotham, i. p. 295. [3] Van Aalst, p. 69.

pipes. Their first instrument of bamboo, therefore, was the *Pai-hao*, which consisted of "a collection of ten tubes, gradually decreasing in length, and connected together in a rough manner by silk cord."[1] It was only in comparatively recent times that they began to fashion single bamboos into flutes.

The instruments of bamboo are of three general kinds: —

First, the *Pai-hao* (Pai-hsiao), or pipes. The number of these pipes, originally ten, was subsequently increased to twelve, and later to sixteen, which is the present number. These tubes correspond to the twelve Lüs, and the first four Lüs of the grave series.[1] They are arranged upon an ornamented frame, the form of which is supposed to typify the phœnix with wings outspread. The use of the Pai-hao is confined to ritual ceremonies.

Second, the *Ty*, or flute. There are many varieties of this instrument, which it is unnecessary to describe. The most common is the *Ti-tzu* (Figs. 19, 20). This is a tube bound round with waxed silk, and often ornamented with tassels. It has six finger-holes, and two holes for the breath. The pitch varies according as the wind passes through one or the other of the latter. The hole not in use is covered with a thin membrane. The Ti-tzu is indispensable in every Chinese orchestra. It is very popular, being used constantly at weddings and funerals, and "various other occasions, both joyous and mournful."[2] It is a favorite instrument for solos.[3]

The flutes used in religious ceremonies differ in no respect from the common flutes, save that the former are adorned at the ends with a dragon's head and tail. Hence they are called "dragon flutes" (*Lung-ti*).

It remains only to mention the *Sona*, or Chinese clarionet (Fig. 3). This is a small instrument, having a reed mouthpiece not unlike that of a European oboe. It gives a most shrill and

[1] Van Aalst, p. 69. [2] Van Aalst, p. 72. [3] Another variety of flute is shown in Fig. 21.

piercing sound, quite unendurable to Western ears. In spite of this fact, however, it is one of the commonest and most popular of Chinese instruments. No wedding or funeral procession is considered complete without the Sona.

VII. INSTRUMENTS OF GOURD.

Under this head we have the *Chêng* (Shêng), or Chinese mouth-organ (Fig. 14). This is one of the most ancient of Chinese instruments, going back to mythical ages. It consists of a body of gourd, which is fitted with a wooden mouthpiece, and into which are inserted seventeen bamboo pipes, varying in length. Thus in this instrument we do not have the sound of gourd in its purity, but combined with the sounds of bamboo, wood, and metal. For the sound of the pipes is produced "by means of the vibration of a little tongue of metal, which is fitted, by means of beeswax, in the lower end of each pipe."[1] The Chêng, according to Dr. Eastlake, is the most perfect of Chinese instruments, both in sweetness of tone and delicacy of construction. Its use is confined to the Confucian ceremonies, in which six Chêngs are used. It is played by sucking in the breath; and long-continued playing is said to bring on inflammation of the lungs and bronchial tubes, so that no good performer lives more than forty years. The principle embodied in this instrument is really that of our grand organ. "Indeed," says Dr. Eastlake, "according to various writers, the introduction of the Chêng into Europe led to the invention of the accordion and the harmonium."[2] The same instrument is found in Japan under the name of *Sho.*

[1] Rowbotham, i. p. 295.

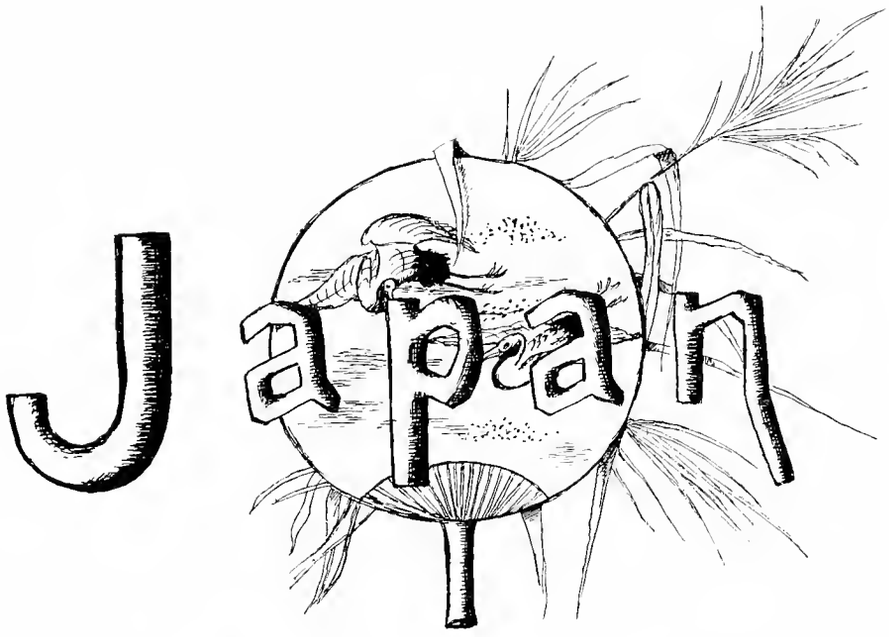
[2] Quoted by Van Aalst, p. 82.

VIII. INSTRUMENTS OF BAKED EARTH.

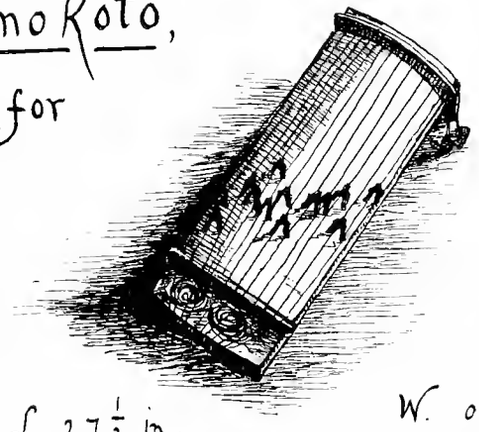
Under this head we have the *Hsüan*, a species of ocarina said to have been invented in the year 2700 before our era. This consists of "a reddish yellow cone of baked clay or porcelain, ornamented with designs of dragons, clouds, etc., and pierced with six holes,—one at the apex to blow through, three in front, and two behind."[1] The tones of the Hsüan conform to the pentatonic scale. It is almost impossible to procure a specimen of this instrument, the use of which is confined to the Confucian ceremonies, and for an idea of which we are obliged to rely upon Chinese accounts. The fact that baked earth was very early used to form the bodies of instruments of percussion has already been mentioned.

[1] Van Aalst, p. 83.

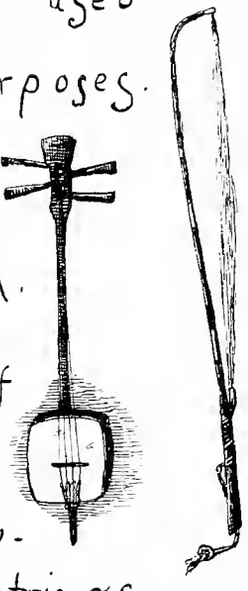
JAPAN AND COREA.



1. Sono Koto, small variety used for travelling purposes.
L. 42 in.; W. 9 in.

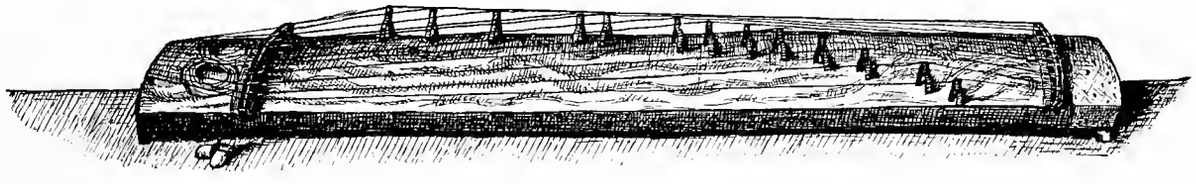


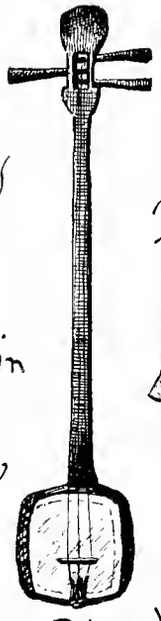
2. Kokiu, violin.

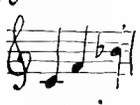


L. 27½ in. W. of body 5½ in. L. of bow (Kiou) 36 in. Tuned in fifths.

3. Sono-Koto, the representative instrument of Japan. Has 13 silken strings, passing over movable wooden bridges, 2 in. high
L. 5 ft. 11 in. W 9¾ in. Greatest thickness of body 3 in.

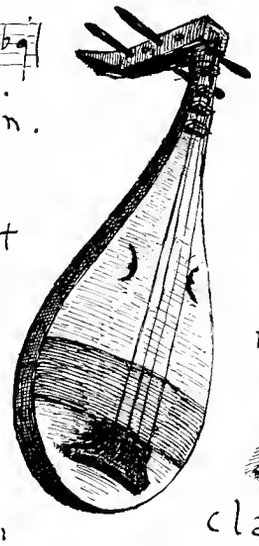


4. Samisen,  The instrument now most commonly used in popular music in Japan. Played with a plectrum of tortoise shell, $8\frac{1}{2}$ in long, $3\frac{1}{4}$ in. wide. Tuned in three different ways.

e.g. , , or 

L. 39 in. W. of body 8 in.

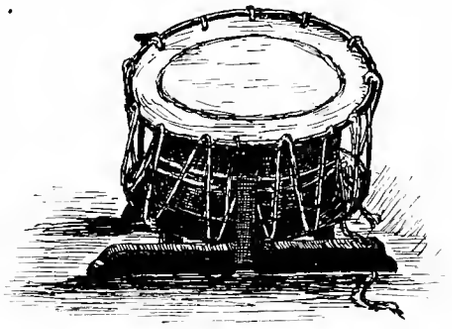
5. Biwa, (Heike-Biwa) This instrument has 5 frets, and is played with a large wooden plectrum, thus being distinguished from the Biwa used in classical music which has 4 frets and is played with a small plectrum. L. 32 in. D. 12 in.



6. Shakuhachi L. 1 ft 10 in D. 2 in. A primitive flute.
Scale: C♯, E, F♯, G♯, A♯, B.

7. Aino Jewsharp.
L. 4 in. W. $\frac{3}{8}$ in.

8. Taiko - drum.
rests upon a wooden stand, from which it is hung by cords.
Beaten by deal drumsticks. D. 14 in. H. 14 in.



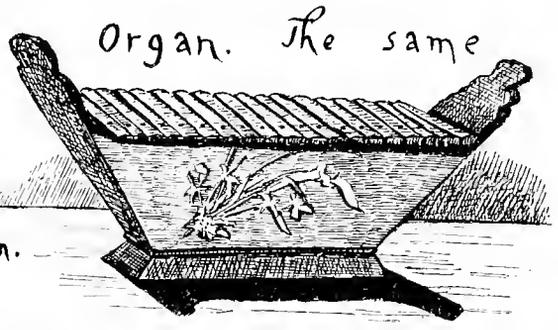
9. O-Tzudzumi (Toussoumi-)

or large Tzudzumi, is a hand-drum
It is held between the left
elbow and the side, and beaten
with the fingers of the right hand. H. 1 ft. D. 9 in.

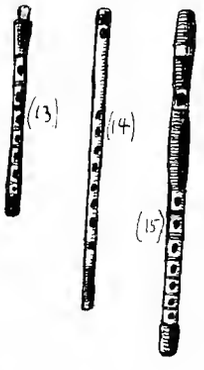
10 Ko-Tzudzumi, or small Tzudzumi, a smaller
drum of similar shape. Held on the right shoul-
der by the left hand, and beaten with
the right hand. H. 10 in. D. 8 in.

11. Shō, or Mouth Organ. The same

instrument as the
Chinese
Cheng.
D. 3 in.
L. 20 in.
This
particular specimen fifty years old.



12. Mokkine, a kind of xylophone. Has 16 wooden
Keys, varying from 11½ to 8 in. in length.
Beaten with two wooden drumsticks.
H. of box 9½ in. W. at top 21 in., at base



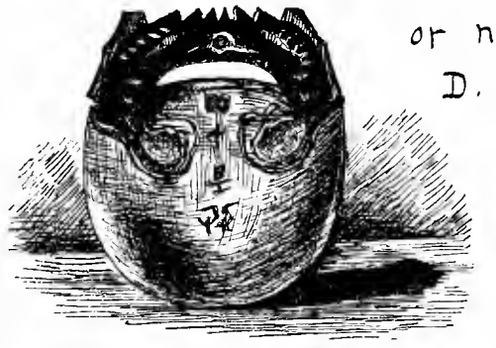
13½ in.
7 in.

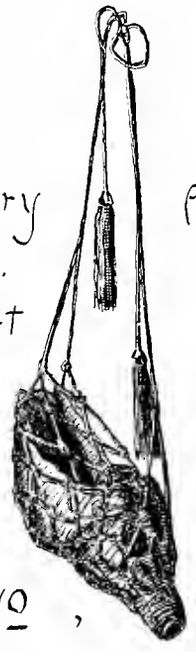
13. Shichiriki, a small reed instrument L.
14. Shinobuye, a flute, L. 15½ in.
15. Riyuteki, a flute, L. 16¼ in.

16. Taiko - (Kagura - Taiko.)

A large drum, used by the priests in the Buddhist and Shinto temples. D. 13 in. Height of frame. 3 ft. 11 in. Width of frame 21½ in. Beaten with a single large drumstick.

17. Rappakai or Conch Trumpet, used for military purposes, and also in religious ceremonies. Usually carried in a sort of bag or net of cord. L. 15 in. D. 6 in.

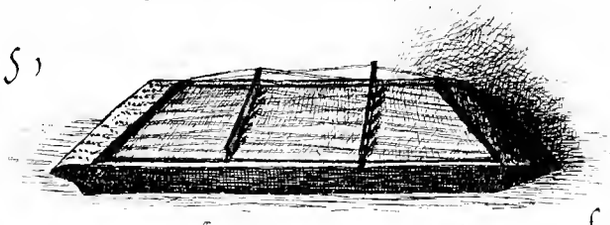




18. Mokugyo, or "Wooden fish". A kind of drum. Made of wood hollowed, Struck by the Buddhist priests while reciting their prayers, one tap, for each syllable. H. 14 in. W. 12 in. T. 9 in.

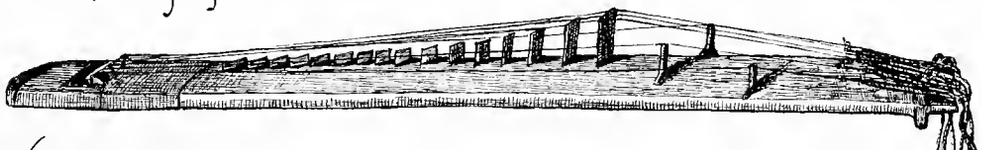
Corea

1. Nallari. Clarionet. Wood, the mouth-piece and base of brass. Seven finger holes in front, and one in the rear. A favorite instrument with the Coreans, who often take it with them when going for a stroll.



L. 15 in.

2. Yang-Kum The Yang-Kin of China. Has 14 sets of wire strings, passing over 2 wooden bridges. L. 26 in. W. 8 in. Played with 2 slips of wood



3. Komounko. The body of darkish wood. Has six silk strings, of which the three centre ones pass over a series of raised wooden frets. The others pass over single movable bridges. Played with a wooden plectrum L. 58 in. W. 7 in

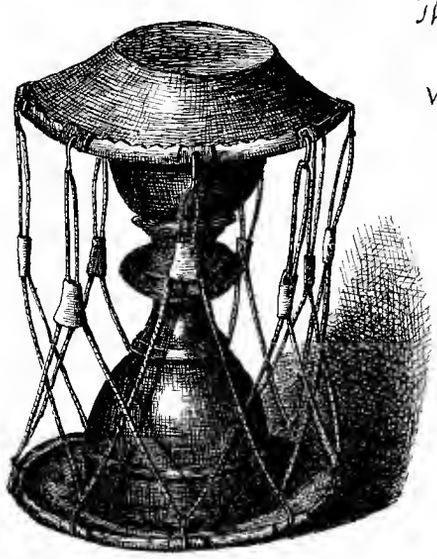
4. Haqqum Violin. Wood, lacquered. The 2 strings of silk are held by a piece of brass, worked to represent a frog. L. 26 in. D. 3 in. Th. of head 3½ in. L. of bow 25 in.

5. T'oungsyŏ Flute. 5 holes in front, and one behind. Usually played in pairs L. 1ft. 5½ in D. ⅝ in. Made of bamboo.

6. T'oungsyŏ L. 1ft. 3½ in.

7. Saihwang Mouth Organ. The Chinese Chêng. 14 Bamboo pipes set in a gourd. The body inlaid with wood. The mouth-piece of amber. L. 1ft. D. of body 2½ in.

8. Chang-Gou Drum. One end beaten with the fingers, and the other with a stick. The tone varied by beating, now on the head and now on the rim. H. 2ft. 2 in. D. 18 in



III.

JAPANESE MUSIC.

IT is only within the last thirty years that the islands of Japan have been open to intercourse with Western nations. During that period they have made immense progress in government, in industries, and in science; but until very recent years Western civilization has had but little influence upon their music. It has often been remarked that the Japanese are not an inventive, but an imitative people. They have imported our railroads, our telegraphs, our school-system. It should therefore cause no great surprise, that, within the last few years, this great movement should have reached the art of music also. Our familiar melodies may now be heard whistled on every street-corner of Yokohama, and that with great accuracy; for the Japanese is blessed with a very true ear.[1] Nor is this movement popular only. In the year 1878 the Government, recognizing the important sphere played by the musical art in the education of a people, appointed a commission to inquire into the character of European music, and its fitness for introduction into the school-system of Japan. In 1880 a national institute of music was opened in connection with the normal school of Tokio, and the services of Mr. Luther Whiting Mason secured as instructor of music. The aim of the institute was threefold: "First, the compilation and composition of pieces, taking the best out of both European and Oriental music,"[2] with a special view to discover which system was best adapted for use in

[1] Japanese Music and Musical Instruments, *Musical Herald*, May, 1887.

[2] Extracts from the report of S. Isawa, Tokio, Japan, p. 2.

Japan; "second, to train special students who shall be fitted to undertake the improvement of our music in the future; third, to introduce the new music into schools, so as to test its adaptability." For the past eight years this work has been carried on, not without the accomplishment of great results.[1] In view of these facts, the future of Japanese music is at present a question of special interest to the student. The Japanese themselves are divided in opinion. While many admit the superiority of European music, and favor its introduction in its purity, a strong party oppose this on the ground that the music, like the language of a people, is the development and outgrowth of their national life through many ages, and that it would be as difficult to change the mother tongue of a people as to alter their music.[2] It has been the aim of the commission to combine what is best in each of these views. How far they will succeed in their attempt, must be left to the future to decide. A recent writer in "The Musical Herald" speaks as follows, in reference to the future of Japanese music: "That it will be an exquisitely finished reproduction of our own, can scarcely admit a doubt. That a new and quaint flavor will be found in the original music which shall be produced, is, of course, to be expected. Whether a great and original Japanese school shall soon appear, is less certain."[3] In any case, it is certainly to be hoped that the undoubted beauties of the native music may be cultivated and enriched by further study, rather than that a mere servile imitation of our own should be introduced. Whatever the future may bring in this direction, no lover of music can fail to be interested in a brief consideration of the past history and present condition of music in Japan.

The average European who has had the opportunity of listening to a Japanese orchestra may smile at the idea of their music having

[1] The military music of Japan is said to have been entirely remodelled on the European plan; and musical instruction, both vocal and instrumental, finds a place in the curriculum of several of the schools.

[2] Isawa, pp. 1, 2.

[3] May, 1887.

any real value. Miss Bird, indeed, compares her sensations on one such occasion to those caused by an attack of acute neuralgia.[1] But here again, as in the case of China, it must be remembered that the lack of appreciation is mutual. Dr. Müller was on one occasion told by a Japanese noble, that, while European music might be all very well for women, coolies, and children, no well-educated Japanese could endure it.[2] Music is, after all, a matter of the emotions rather than the intellect; and when a Japanese, all insensible to the charms of Rossini and Bellini, is melted to tears by the melodies of his country, we must agree with M. Kraus[3] in admitting the true and legitimate influence of music, however incapable our ears may be of appreciating it. In the Japanese civilization, as in the Chinese, music has been for centuries one of the chief factors. It takes a prominent place in all ceremonies, both religious and secular, and plays a no less important part in private life. At every corner one meets improvisators, who accompany themselves upon the *Samisen*. At his arrival in a strange village, the traveller is sure to be greeted by female musicians, with whose melodies he may be entertained during his repast. Street bands are as numerous as in China, and the use of musical instruments, among the people in general, much more universal. Unlike the sister kingdom, Japan considers it no disgrace for her subjects to perform in person. Especially is the contrast noticeable in the case of women, all classes of whom are proficient in music. Scarcely a house which does not possess a musical instrument of some kind; and even the humblest bride does not consider her *trousseau* complete without a Samisen, the guitar of the country, and, if possible, a *Koto*.[4]

The Japanese mythology attributes to music a divine origin. According to their tradition, Amaterasu, the goddess of the sun, offended by the other divinities, hid herself in a cave, which she

[1] Unbeaten Tracks in Japan, vol. ii. p. 212.
[2] Kraus: La Musique au Japon, p. 11.
[3] p. 12.
[4] Kraus, p. 15.

obstinately refused to leave until charmed thence by the sound of music, which the gods, desolated by her absence, had invented to lure her from her retreat.[1] So much for the traditional origin of Japanese music. The historical question is not quite so simple.

Most writers agree in tracing the origin of Japanese music to China. Whatever may have been true of the music of the aboriginal inhabitants of Japan, of which nothing now is known, certain it is that no one can fail to be struck by the marked similarity between the present classical Japanese music and that of China. The instruments of the two countries, also, are largely identical. It is true that recent Japanese students of the question, as S. Isawa,[2] trace the ultimate origin of the music of their country to Hindustan. But if this be true at all, it is so only indirectly, as the roots of Chinese music itself may be traced to India. Unquestionably, the direct source of the present music of Japan must be found in the sister kingdoms of China and Corea. The date of the first introduction of these musical influences cannot be exactly determined. The relations between Japan and Corea date back two thousand years, but the first authentic mention of musical relations between the two countries occurs in the year 453 A.D. In this year "the King of Shiragi (in Corea), being deeply grieved at the news [of the death of the Emperor of Japan], sent eighty ships full of presents, with eighty musicians of different kinds," etc.[3] From this time certainly, if not from an earlier, the Japanese were acquainted with the music of Corea. It seems, however, to have made slow progress at first. With the introduction of Buddhism, in 552, a great impulse was given to the study of music. Under the regency of Prince Shotoku, himself a sincere believer in Buddhism, the people were commanded to learn music; and it is said that when this prince overthrew Moriganodaijin, "he led on his army to the tune of 'Bairo,' a piece of classical music."[4]

[1] Kraus, p. 12. [2] Report, p. 54. [3] Isawa, p. 54. [4] Isawa, p. 55.

At the beginning of the seventh century, communication was first opened between Japan and China; and, from this time on, intercourse between the two countries became frequent and intimate. As a result, "the flood of Chinese civilization at once inundated the land."[1] In no sphere was the effect of this more noticeable than in that of music. The Chinese classical music was adopted bodily, and many of the present Japanese instruments were doubtless introduced at this time. From this time dates the great popularity of music in Japan. No public or private rites could be performed without it. Even the emperors not unfrequently distinguished themselves in this branch of art. Unfortunately this period of musical prosperity was destined to be of short duration. With the beginning of the tenth century, the relations between China and Japan again became strained. Japanese students could no longer enter China; and with the cessation of the former intercourse, seem to have ceased also most of its effects. The study of classical music was discontinued. And to this day, while retaining unchanged the theory of music as received from China, Japanese musicians have done little or nothing to increase or improve their knowledge of it. Japan can boast no such library of theoretical works on music as is to be found in China.

Popular music happily did not share the above fate. Though, like the classical music, derived directly from Chinese sources, it seems only to have been brought into greater prominence by that cessation of intercourse which proved so nearly fatal to the latter. Moreover, the Japanese, freed from the iron rules which had previously fettered him, seems, from this time on, to have developed his music along new and original lines. Not troubling himself much about theory, he yet introduced much variety into his practice, and produced a music which has a marked individuality of its own. The Japanese are a practical people, and their attention was given

[1] Isawa, p. 56.

primarily to the production of new and pleasing effects of sound. It will be impossible here to follow the vicissitudes in this musical development. At different times, different types of music appear to have been most popular. Singing received great attention from the earliest times. The introduction of the drama was comparatively recent, the present form of the theatre not dating back more than a century.[1] It will be sufficient for our purpose to call attention to certain marked contrasts between the present music of Japan, and that of China. I have spoken already of the fact that in Japan music is an art, rather than a science, and that the Japanese has done nothing in the development of a theory of music. Officially, to be sure, he accepts the Chinese pentatonic scale, and links with it various mystical associations. Thus, for instance, *Kiu*, the tonic, means a temple; *Sho*, the second, a trade, and so forth. Each month is supposed to have its corresponding tone, and legend asserts that with the varying months the wind also changes its key. The keynote being given, the remaining notes of the scale are obtained by a somewhat obscure process of computation, supposed to prove some mysterious connection between the musical system and the order of nature.[2] But of all this the practical musician knows nothing. He does not even adhere to the pentatonic scale. "The tuning of the Koto (the Chinese Kin) yields a scale unlike that of the Kin, in that the fifth (of the pentatonic) is sharped."[3] Recent experiments have proved that the scale now employed by Japanese musicians coincides essentially with our European chromatic scale. Mr. Mason, after repeated trials, was unable to detect any difference in tonality between Japanese music and our own, but only a difference in the method of tonal combinations.[4] Still another contrast must be remarked between the music of Japan and that of China. The former is less sensuous than the latter. Mere brilliancy of sound presents less attraction to the

[1] Isawa, p. 59. [2] Kraus, p. 34. [3] *Musical Herald*, April, 1887. [4] Isawa, p. 14.

Japanese than to his Chinese brother.[1] This contrast appears, also, in other sides of his life, as in the comparatively quiet color of his garments.

The Japanese possess for their sacred music alone a relatively complete system of musical notation.[2] In works intended for stringed instruments, they indicate by a number the string to be used; and in like manner, in the case of wind instruments, by a series of numbers, the holes to be closed by the fingers. Accidentals are indicated by little marks by the side of the note, which mean that the finger must be raised or lowered. The duration of a note may be indicated in two ways: first, by leaving between the signs of the different notes (written one above the other), a space larger or smaller, according to the greater or less value of the note; second, by placing to the right of the musical sign indicating the note, a whole, half, or quarter circle, according as the note is intended for a whole, half, or quarter note. The Japanese have no signs to indicate the time. Most of the melodies with which travellers have made us familiar are in four-four or two-four time.

In secular music, certain monosyllables, varying according to the instrument to be played, are added to the sign of the note, to indicate the movement to be given. Thus, in the case of wind instruments, the syllable *ra* is used, repeated thus, *rarara, ra, rara*.[3]

The Japanese, like the Chinese, write their music in vertical lines, from right to left. In vocal music, the words are written to the left of the lines. Musical compositions are generally written so as to be played either with or without the accompaniment of the voice or a second instrument. In the former case, the song is always written in unison, and is regarded as an accessory to the leading instrument. In the latter, the second instrument preserves throughout the piece the interval assumed at the beginning. In secular music, however, there are exceptions to this rule.

[1] Rowbotham, i. 318. [2] Kraus, p. 37. [3] Kraus, p. 38.

Japanese musicians are divided into four classes or corporations, some of which are invested with a public character, meeting at certain fixed periods in accordance with their regulations, and taking part in great ceremonies, both religious and secular. Others devote themselves to the service of individuals, receiving compensation according to their personal skill. The first class, called Gakkunine, take rank with the most distinguished personages in the state, even the Damios themselves having formerly been eligible for membership. This class devote themselves exclusively to sacred music, and in their midst is to be found all the theoretical musical knowledge which still exists in Japan. Its members are all distinguished instrumentalists, and the orchestra of the Mikado is recruited from their ranks. This orchestra still renders at certain seasons the ancient music of Japan. The words which originally accompanied this music have long ago been lost, and even the names of the pieces are unknown.[1]

The second class, called Guenïn, rank with the merchants, and, with the occasional exception of some skilled Koto player, are ignorant of musical theory. The Guenïn perform secular music exclusively, and to their numbers belong the orchestra of the grand prince.

The third class consists of blind men, and is highly esteemed. They form a close corporation, self-supporting, and with independent officers. In former days they enjoyed exceptional privileges, and even now their chief receives an annual pension of 4,300 *tael*, and has the power of life and death over his subordinates.[2] Each member of the corporation works with his hands at some trade, and turns over his earnings to the common treasurer. A romantic legend is connected with the origin of the society. Feki, a prince, fell in conflict with Joritomo, the Japanese Mars. His faithful general was taken prisoner, and treated with such magnanimity by his

[1] Kraus, p. 26.

[2] Kraus, p. 28.

captor, that, unwilling to seem ungrateful, and yet unable to endure without rage the sight of the hand that had slain his master, he plucked out his own eyes and presented them to his captor. Astonished at such courage, Joritomo immediately restored him to liberty. He became a musician, and the founder of the society in question, to which he gave the name of his beloved prince.[1] The services of the Feki-blind, as they are called, are in great demand; they are found in the ranks of the court musicians, and they take part also in ceremonies both religious and secular, in festivals and weddings, and in processions. Their favorite instrument is the Biwa.

The fourth class, which is also the most numerous, consists of those women who devote themselves to music and song. Its members are little esteemed, and forbidden to take part in sacred music. Yet they are found on every street corner. No sight is more familiar in Japan than the *Gheko* (Gueschia), or singing-girl, and her Samisen. To its accompaniment she will sing you all the popular songs of the day, with perhaps some romantic legend founded upon the past history of Japan. In spite of the temptations to which such a career is exposed, the Ghekos are generally girls of good character; and it is no uncommon thing for them to amass a snug little portion, and to find a good husband in whose company to pass the rest of their days.

In time past, these four classes were subdivided into innumerable corporations. Even to-day each has its grand master, who has the right to confer rewards and honorary distinctions. Of these the most appreciated is the right to tune the first string of the instrument an octave higher or lower than the required tone.[2]

The theatre, in spite of its comparatively recent origin, is extremely popular in Japan; and, in connection with this, the orchestra plays an important part. The representations last all

[1] Kraus, p. 27.

[2] Kraus, p. 29.

day, and consist of a sort of variety show, including often a comedy, a tragedy, an opera with a ballet, and concluding with the performance of a melodrama based on some historical subject. In martial scenes the effect is increased by the free use of the *Taiko*, or bass drum.

Music does not play as important a part in connection with religious ceremonies and processions as in China, though its use on such occasions is very general. The chanting of the Buddhist priests in their services is said to be very impressive. Each man chants "not on a given key, but on that which best suits his natural voice." The effect of this blurred and massive body of sound is said to be very good, creating an impression, not unlike that produced by a large congregation when repeating the Lord's Prayer in unison. The chanting is often accompanied by the free use of gongs and drums.[1] In all such ceremonies, and especially in the religious processions, the drum plays an important part. Indeed, the Japanese fully shares the fondness of the Chinese for instruments of percussion. There has been preserved a picture of a Japanese orchestra in which six instruments of this kind are balanced against a single flute.[2]

I have already spoken of the fondness of the Japanese for singing. The song has a place in all departments of his life. The Gheko has no monopoly of it. It is no uncommon thing to hear laborers singing at their work. The Japanese, being an agglutinative language, lends itself charmingly to song; though "the strained and ear-rending falsetto, which all singers affect, witnesses a barbaric taste, which a better knowledge, and especially an acquaintance with harmony, will speedily expunge."[3] Here, at all events, may be found a promising field for the early labors of the institute.

[1] Elson, p. 210. [2] Siebold: Pantheon of Nipon, Part C., plates. [3] *Musical Herald*, June, 1887.

IV.

MUSICAL INSTRUMENTS OF JAPAN.

IT has been asserted that the instruments of Japan, while resembling, in general appearance, their Chinese prototypes, are much cruder.[1] Rowbotham goes so far as to say that if a Japanese lute were placed by the side of a Chinese one, it would appear like the work of some schoolboy who had tried his hand at carpentering in the holidays.[2] Such at least has not been the experience of the present writer. The Japanese instruments which make part of the present collection certainly compare very favorably, as to finish and workmanship, with those of Chinese make. Nor is this an isolated experience. Fétis[3] speaks of the Japanese instruments which had come under his observation, as having a remarkable finish. This, indeed, is only what might be expected of a people, the neatness of whose workmanship is well known in every market of the world.

In considering the instruments of Japan, the student is confronted by no such eightfold division as has been remarked in the case of China. The Japanese cares little whether the sounds to which he listens are produced by wood, skin, or clay. It is enough for him if they be pleasing to his ear. He divides his instruments simply into two great classes, — perfect and imperfect. Perfect instruments are those used for sacred music: all others are imperfect. This distinction, while doubtless satisfactory enough

[1] Elson, p. 202. [2] Vol. i. p. 319. [3] Histoire Générale de la Musique, vol. i. p. 82.

to the Japanese, is not so well adapted for the present purpose, inasmuch as the two classes often differ only in minute points of construction and ornamentation, in the character of their strings,[1] or, at most, in the method of tuning. For the present, therefore, this distinction may be ignored; and we may content ourselves with the time-honored division into stringed instruments, wind instruments, and instruments of percussion.

Before taking up Japanese instruments proper, a word may be in place as to those which still survive among the Ainos, or aboriginal inhabitants, numbers of whom are to be found in the island of Yesso. Their ideas of religion are crude and indistinct, and their general state of civilization very low.[2] Much musical proficiency is not therefore to be expected. Miss Bird has, however, given an account of two instruments which she saw among them. The first was a sort of rude guitar, with three, five, or six strings, made of the sinews of whales cast up upon the shore. The second (Fig. 7) consisted of "a thin piece of wood, about five inches long and two and a half inches broad,[3] with a pointed wooden tongue, about two lines in breadth and sixteen in length, fixed in the middle, and grooved on three sides. The wood is held before the mouth, and the tongue is set in motion by the vibration of the breath in singing." The sound is not unlike that of a jew's-harp, though less penetrating. It is not easy to obtain a specimen, as the people are unwilling to part with them, owing to the difficulty of obtaining pieces of wood which will stand the necessary fine splitting.

[1] Those used for sacred instruments are manufactured at Kioto, and are very expensive. The others are mostly manufactured at Yeddo.

[2] Unbeaten Tracks in Japan, vol. ii. p. 103.

[3] The specimen represented in Fig. 7 is not more than three-eighths of an inch broad.

STRINGED INSTRUMENTS.

Returning to Japanese instruments proper, we begin our consideration with the division of stringed instruments. Of these the four most important are the *Koto*, the *Samisen*, the *Kokiu*, and the *Biwa*.

The name Koto is applied to a large family of instruments, varying greatly in size, construction, and number of strings, from the *Summa-Koto* with its single string, to the *Sono-Koto* which has thirteen. A full account of the different varieties is given by Kraus, in his chapter on the stringed instruments of Japan.[1] It will be sufficient here to mention a few of the most important. An interesting legend is connected with the Summa-Koto just mentioned, to the effect that it was invented by a certain noble banished to the province of Summa (Souma), who, for want of better materials, constructed a rude instrument out of his hat and a bit of cord.[2] I pass over various varieties of Koto, strung respectively with two, three, five, and six strings (of which the latter, called *Wangong*, is supposed to be of celestial origin, and is used exclusively for sacred music[3]), to speak of the *Schikenkin*, or *Kinno-Koto*.[4] This instrument corresponds to the Kin, or scholar's lute, of China.[5] Like the Kin, it has a body of lacquered wood, and is strung with seven silken strings, passing over a common bridge. Though, like the Wangong, a perfect instrument, it does not boast a celestial origin. The story of its introduction into Japan is as follows: In the year 331 A.D., a certain old ship, having become waterlogged, was taken to pieces, and the wood burned to extract the salt. Out of the burnt fragments, certain Corean workmen constructed a number of Kins, and from that time dates the acquaintance of the Japanese with this

[1] La Musique au Japon, chap. vi. [2] Kraus, p. 62. [3] Kraus, p. 63. [4] Kraus, p. 64.
[5] See Fig. 6, under China.

instrument. By far the most important instrument of the Koto family is the *Sono-Koto* (Figs. 1 and 3), also called *Tsukushi-Koto*, from the place of its supposed origin.[1] In general appearance, it corresponds to the Chê of China, though having a less number of strings. This instrument is constantly used both for solo and orchestral playing. In the latter case it is considered the base of the orchestra. In a Sono-Koto of regulation size, the body should be six feet long, ten inches broad, and three inches thick. It should be made of Kiri wood (Pawlonia Imperialis), a tree the blossoms of which form the household crest of the Mikado. This wood, which is almost white naturally, is first charred, and then rubbed with straw rope, — a process which brings the natural marking into beautiful prominence. The Koto should be strung with thirteen strings of silk, saturated with wax, each passing over a separate movable bridge. In playing, the performer sits cross-legged before his instrument, and picks the strings with the ends of his fingers, protected with little ivory-tipped plectra.[2] For travelling purposes, a smaller size of the instrument is employed (Fig. 1). The perfect Koto differs from the imperfect only in richness of ornamentation. There is no regular single tuning for the Sono-Koto. At least five are generally accepted. None of the established tunings gives regular diatonic progression;[3] though in one of them, if the second string be assumed as the tonic, the relations of the several tones are essentially the same as in the natural minor scale.[4]

Next to be considered are the instruments of the guitar family, of which the most important is the *Samisen* (Siamisen) (Fig. 4). This instrument is the one most generally used in Japan. The place of its origin is disputed; some claiming that it was imported from Loo-choo, others from "an old country of Europe,"[5] though the latter seems impossible. It has a body

[1] Isawa, p. 60. [2] Engel, p. 197. [3] *Musical Herald*, July, 1887. [4] Isawa, p. 20. [5] Isawa, p. 59.

of wood, covered on both sides with cat-skin, and protected on the side nearest the player by a guard of cloth. The handle is of hard wood, long and thin, and the strings, three in number, of gut. It is played with a large plectrum of ivory, tortoise-shell, or wood. It may be tuned in five different ways. Like the guitar, the Samisen is most frequently used to accompany singing. As has been said, it is the instrument *par excellence* of the Gheko. Beside the Samisen, there are found in Japan various other instruments of the guitar family, for a detailed description of which the reader is referred to M. Kraus. The San-Heen and Yue-Kin of China re-appear in the sister kingdom.

Next in order come the violins, of which class the *Kokiu* (Fig. 2) is the representative. This instrument is not unlike the Samisen in appearance, though much smaller. It has four strings of gut, and is played with a long horsehair bow (called *Kiou*). The instrument is held perpendicularly in the left hand, the neck uppermost, and the body resting on the lap. The bow is grasped with the right hand, in such manner that the hairs may be tightened or loosened at pleasure, between the fourth and fifth fingers. In spite of this clumsy method of bowing, it is said to yield tones which are remarkably sonorous and good. Like the Samisen, the Kokiu is said to have been introduced from Loo-choo, whither it was imported from China. The Kokiu has received the hearty praise of European writers as the king of Japanese instruments. Whatever may be true of the comparative merit of the other instruments of the two countries, the superiority of the Kokiu over the best Chinese violin must be admitted. It is therefore a pleasure to hear that the Musical Commission has recommended, that, with the pianoforte and organ, the Koto and the Kokiu should have a place in the curriculum of the institute, and in ordinary school instruction. Experiments for improving

[1] Isawa, p. 59.

its construction have already been made; and, by substituting a sounding-board of Kiri wood for the customary cat-skin, a much finer quality of tone has been secured. Beside the Kokiu, we find in use in Japan the ordinary violins of China and Corea. The former is used especially in connection with theatrical performances.

It remains only to speak of the *Biwa* (Fig. 5), or lute, as it has sometimes been called. This instrument, which is said to have originated in Hindustan,[1] is identical with the Chinese *Pepa*, or balloon guitar. It has an oval shape, not unlike that of the lute, but its body is much less deep. One of the most beautiful lakes of Japan, near Kioto, is called Biwa Lake, from the fact that the outline of its shores resembles the body of that instrument. The Biwa has four silk strings, which, like those of the Samisen and the Koto, admit of a variety of tunings. It is used both for classical and popular music. In the former case, it has four frets, and is played with a small plectrum; in the latter it has five frets, and is played with a large plectrum. In this case it is called Heike-Biwa; the name being derived from a celebrated piece of music several hundred years old, supposed to be the ancestor of the present drama.[2] I have already mentioned the fact that the Biwa is the favorite instrument of the Feki-Blind.

WIND INSTRUMENTS.

Of these the most important is the flute, called *Fuye* (Fouye) or *Teki*. This is a very ancient instrument, dating back to the most remote times. According to the code compiled by the forty-third emperor Mommu, the flute was the only instrument of music in use in his time.[3] A Japanese legend relates that a certain famous player of the Fuye, having hidden himself in a cave to escape the consequences of a crime, was approached by an

[1] Isawa, p. 58. [2] Isawa, p. 59. [3] Isawa, p. 55.

immense serpent. Terrified at the sight, the wretched man seized his instrument, and, as a last farewell to life, began to play one of the popular melodies of the day. To his surprise the monster stopped, listened a while with pleased attention, and at length retired, without doing the frightened musician the least harm.[1] From this time dates the belief that the Fuye has power to charm serpents and other venomous beasts. There are many varieties of the flute in Japan, both traverse and vertical. Two of the most common forms are shown in Figs. 14 and 15. The ordinary flute consists of a bamboo tube, with a hole for the breath near the top, and seven finger-holes near the base. These holes are made oblong, in such a way, that, by closing them more or less completely, the player can modify the tone produced. In the *Riyuteki*, the body of the instrument is wound with a series of layers of black cord. A more primitive instrument is the *Shakuhachi*.[2] This is a vertical flute, consisting of a thick tube of bamboo about two feet long, having four holes in front and one behind. It is said to be very difficult to play. Legend attributes its origin to a sect of wandering Buddhist monks. To the family of vertical flutes belong also the *Seounofuye*, or Pan pipes, consisting of a series of twelve bamboo tubes of unequal lengths; and the *Shichiriki* (Fig. 13), a single bamboo about seven inches long, which has seven holes in front and two behind. The latter is furnished with a reed mouthpiece, and is said to yield an astonishingly shrill and piercing sound.[3] The Ti-tzu of China is also found in Japan; and the Sona, or oboe, re-appears under the name of *Heang-ti*. For a description of any further varieties, the reader is again referred to the work of M. Kraus. I shall refer to but two other wind instruments. The first of these is the *Shō* (Fig. 11), or mouth-organ, which is identical with the Chinese Chêng, and the construction of which need not therefore be described here. It is

[1] Kraus, p. 49. [2] Fig. 6. [3] *Musical Herald*, July, 1887.

interesting to remark, that, when considering the fitness of various Japanese instruments for educational purposes, the Musical Commission rejected the Shō on the ground of the difficulty experienced in its manufacture, and the impossibility of keeping it properly tuned.[1] In connection with the last point, Miss Bird speaks of a concert which she attended, in which the player of the Shō was obliged constantly to warm his instrument at a brazier of coals, which stood conveniently near.[2] Mr. Isawa mentions a third objection to the popular use of the Shō, which, while obvious enough, sounds somewhat strange to our ears. The trouble consists, he says, in the fact that the musician cannot sing and blow at the same time.[3] It is unnecessary to do more than mention the *Rappakai*, or conch trumpet (Fig. 17). This, like the similar Chinese instrument, is used as a war horn. When not in use, it is carried in a sort of bag or net of cord. It is employed also at religious festivals; and there exists in Japan an order of so-called "mountain priests," who use a rude shell trumpet to excite the charitable disposition of the traveller.

INSTRUMENTS OF PERCUSSION.

Last, but certainly not least, in the opinion of the Japanese, come the instruments of percussion. Of these there are a great variety, which may easily be classified under three heads, according as the resounding substance consists of skin, metal, or wood. To the first category belong the drums proper, to the second the gongs and cymbals, and to the third the castanets and xylophone. The Japanese name for drum is *Taiko*, so called after a celebrated ancient warrior. The ordinary form of this instrument is represented in Fig. 8. It consists of a frame of wood covered with two projecting surfaces of skin. The latter

[1] Isawa, p. 47. [2] Vol. ii, p. 210. [3] P. 47.

are connected by a cord of silk, by tightening which the tension of the skin may be increased. The whole hangs upon a wooden frame, and is beaten with two wooden drum-sticks. *O-Tzudzumi*[1] and *Ko-Tzudzumi* (Tossoumi) are the names of two hand-drums. In form they somewhat resemble an hour-glass; the body being of wood, and the heads of skin, united, as in the Taiko, by a cord of silk. The former is slightly the larger. It is held between the left shoulder and the side, and beaten with the fingers of the right hand. The Ko-Tzudzumi is held on the right shoulder by the left hand, and is beaten with the fingers of the right hand. Of the larger drums, the most important is the *Jamagairou-guine-taico*,[2] or great war-drum, the body of which is made of the hollowed trunk of a tree. The sides are covered with tough skin, which is fastened to the frame with round-headed nails. The whole is suspended by three iron rings in a circular wooden frame, and beaten with two wooden drum-sticks. Similar in appearance is the *Kagura-Taiko* (Fig. 16), a large drum which is used in the Buddhist temples.

It will be unnecessary to do more than mention the second class of instruments of percussion. The Japanese gong is called *Doo*, and it appears in different sizes and in various shapes. Some of these are quite elaborate, such as shields, fishes, tortoises, etc. The most common form consists of a circle of bronze hung in a frame of wood, and beaten with a single large drum-stick. Several kinds of *Nihoïhagi*, or cymbals, are also found. The "mountain priests" also use a small instrument resembling an Egyptian sistrum, consisting of a staff with a copper head, to which are fastened four copper rings, which give a tinkling sound on being shaken.

Of wooden instruments, castanets are the most common. These are of different sizes, and are used both in sacred and profane

[1] See Fig. 9.

[2] Kraus, p. 79.

music. The *Mokkine* (Fig. 12) is a kind of xylophone, consisting of sixteen wooden keys of unequal length, fastened with nails across the top of a hollow box of wood. It is played with two wooden-tipped drum-sticks. In this connection also may be mentioned the *Mokugyo*, a hollow wooden drum, painted red, which the Buddhist priests use to accompany their prayers. This seems to be connected with the *Mu-Yu* of China, which the priest carries with him as he begs from door to door.

V.

MUSICAL INSTRUMENTS OF COREA.

IN most histories of music, Corea is passed over without notice. The omission is probably to be explained partly from the fact of the utter absence of all reliable information on the subject, and partly from the idea that the music of Corea is only a copy, on a less extended scale, of that of China. While the latter is undoubtedly true to a large extent, there are yet marked differences in the character and position of music in the two countries. Through the kindness of the Rev. G. W. Gilmore, for two years resident in Corea, I am able to add some facts to the current knowledge of the subject.

The geographical position of Corea has had a marked effect upon its history. Midway between the powerful nations of China and Japan, it has been prevented from attaining any great and independent development. Its best blood and intellect were drained away centuries ago to feed the latter country, and the flourishing condition of Japan to-day is the best witness to the early prosperity of Corea. I have already called attention to the fact that the present musical system of the Japanese, as well as many of their instruments, first came to them through this channel. This intimate historical connection has led me to classify the instruments of Corea with those of Japan, rather than with those of China, as might otherwise seem most natural.

The music of Corea is undoubtedly founded on that of China. Unlike that of the Japanese, it seems to have varied little in character from the early days. The Corean still uses the pentatonic

scale; and his use of whole tones only, and the consequent absence of all modulation in his music, recall what we have learned of the Middle Kingdom, far more than the present music of Japan. Of harmony, it is unnecessary to say, the Corean knows nothing. Like the Chinaman, he delights in sound, in and of itself. It is not surprising, therefore, that his favorite instrument should be the *Nallari*, or clarionet. This instrument, like the Sona of China, is described by Europeans as having an unendurably shrill and piercing sound. Yet it is the constant companion of the Coreans, indoors and out. Nothing is more common than to see one of them starting out for a stroll with his Nallari under his arm. The tones of this instrument, as played by the wandering musicians of the day, will gather a crowd of eager listeners in an incredibly short space of time. It is always played as a solo instrument, for the excellent reason, that, if used in concerted music, its tones would hopelessly drown those of all the rest of the band.

Music is popular with all classes of the Coreans. It is true that the more wealthy and respectable people share the Chinese idea that it is undignified to take part in instrumental music, and prefer to listen to the performances of paid musicians rather than to play themselves. But the common people have no such feeling. Those who can afford it have their own instruments, and delight to play upon them. Singing is popular with both sexes, and among all classes of the people. Women, however, seldom take part in instrumental music, the Corean orchestra being composed entirely of men.

Strangely enough, music seems to have little place in the religious rites of the Coreans. Whereas in China it forms the basis of all the Confucian ritual, it is never used in the Confucian temples of Corea. The Buddhist monks, it is true, like their brethren of China, use a small wooden drum to attract the attention of wayfarers, and to invite alms. But this seems to be all. Even in

connection with the theatrical representations which are conducted by the Buddhists, and which are patronized only by the lower classes, music is seldom employed.

Orchestral performances are, however, common in private houses, especially at dances and dinner-parties. In the latter case, the players usually occupy a room adjoining that in which the feast is held. On such occasions the instruments most commonly used are the Komounko, the Haggum (or violin), flutes, and the large drum Chang Gou. Sometimes, but rarely, the Yang-Kum is added.

The most characteristic instrument of Corea is the *Komounko* (Fig. 3). This was probably the direct ancestor of the Japanese instruments of the Koto family. It differs from the ordinary Koto, however, in several marked particulars. Whereas in the latter all the strings pass over movable bridges, this is the case with only three of the six strings of the former. The three middle strings pass over a series of fixed frets raised a considerable distance above the surface of the sounding-board. The latter, as in all instruments of the same class, consists of a thin hollow frame of wood. The cords at the extremity of the sounding-board are used for tightening the strings. Their ends are left long for ornamental purposes. In playing, the body of the Komounko is usually held across the lap, while the cords are thrown carelessly over the performer's shoulder.

The *Yang-Kum* (Fig. 2), while a smaller instrument than the Yang-Kin of China, is practically the same, and needs no special description here.

The *Haggum* (Fig. 4), or violin, is the same in principle with the Chinese Ur Heen. As in that instrument, the bow passes inside, between the strings and the handle. The specimen in the present collection is a very beautiful one, comparing favorably in finish with the best of the Chinese and Japanese instruments.

Of wind instruments, the Nallari has already been described. The *T'oungsyŏ*, or flute, is one of the commonest Corean instru-

ments. Several varieties of this are found. The specimens in the present collection (Figs. 5 and 6) are comparatively rude, consisting only of a bamboo tube pierced by four or five finger-holes. Others, however, are more elaborate, being neatly wound with layers of cord, as is common in the Ti-tzu (Fig. 19) of China. It is not easy to obtain a specimen of this kind. A blind musician, from whom Mr. Gilmore attempted to buy such a T'oungsyo, answered that he would give it to him if the latter would engage to support him during the rest of his natural life; meaning thereby that he was entirely dependent upon his flute for his livelihood.

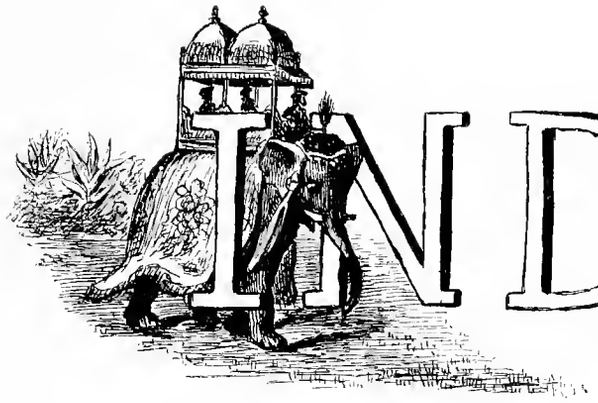
The *Saihwang* of Corea corresponds to the Chêng of China and the Shō of Japan. The present specimen (Fig. 7) is an exceedingly beautiful one, and especially valuable because the instrument is now comparatively rare in Corea.

This completes the list of the wind instruments of Corea. Within the last five years, however, some brass bugles have been introduced from America, which are played before the king in his progress from place to place.

The most important of the Corean drums is shown in Fig. 8. This consists of a frame of hollow wood, in the shape of an hour-glass. It is covered on one end with horse-hide, and on the other with cow-hide. The heads are not fastened to the body, but are held in place by a series of cords which pass diagonally from one head to the other, and by shortening which the tension of the skin may be increased. The *Chang Gou* is beaten on one head with a stick, and on the other with the fingers. A skilful player varies the tone by beating now on the top, now on the edge, and again between the two, and by using alternately the fingers of his hand and the entire fists. In this way very elaborate effects may be produced.

A second variety of drum in common use differs little in shape from our ordinary kettledrum.

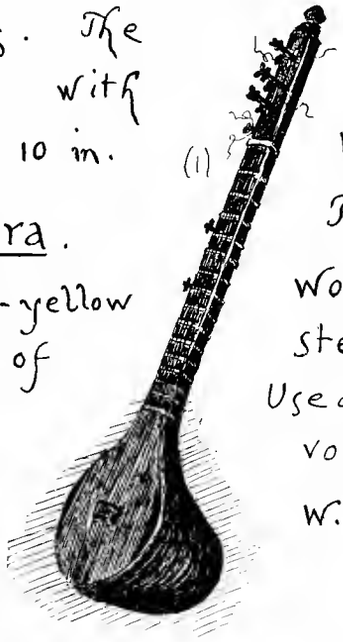
INDIA.



INDIA

1 Soorsringa. The body of dark wood, pear-shaped. The handle inlaid with ivory. 8 wire strings. The bridge of ivory. Played with a small plectrum. L. 3 ft. 10 in. Th. 10 in. Madras.

2. Tamboura. Body of a light reddish-yellow wood. 4 wire strings, three of steel, and one of brass. Used to accompany the voice in singing. L. 49 in. W. 9 in. Th. 8½ in.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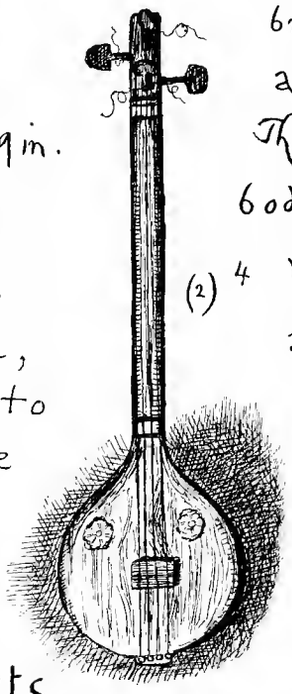
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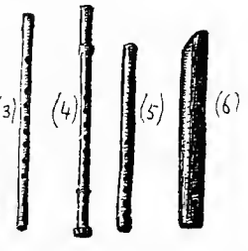
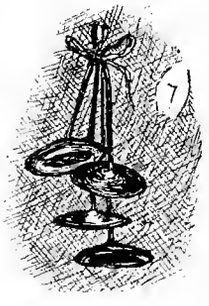
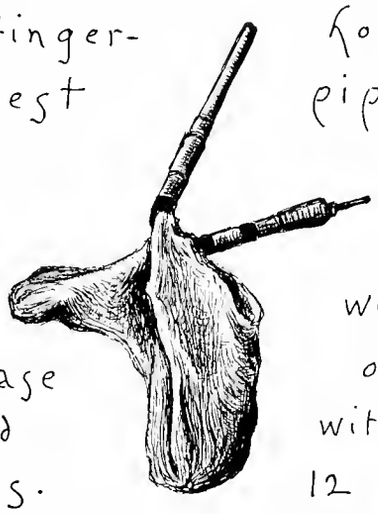
3 - 6. Flute and Flageolets. Bamboo. 7 finger-holes and one thumb-hole, furnished with a brass tip. Length varies from 10 to 13 in. Madras.


(3) (4) (5) (6)

7. Castanets. Brass. D. 2¾ in. Madras.

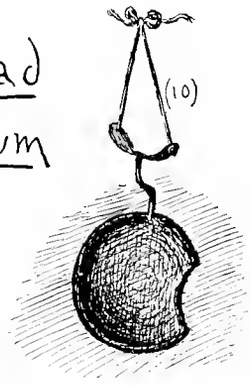

(7)

8. Zitty (Tithi) Bagpipe. A rude bag of leather, with two pipes of wood. Seven finger-holes. L. of bag 16 in., of longest pipe 13 in Madras

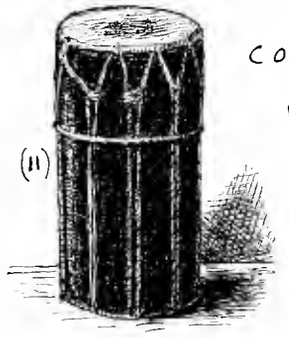


9. Toomerie Oboe. Nagassaran A tube of dark wood, with head piece of brass. Ornamented and based with red and green tassels. 12 fingerholes, 8 in front, and two on either side. L. 16 in. D. 4 in. Madras.

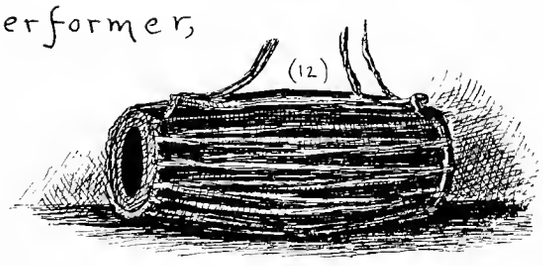
10. Head Drum



The ring of iron, covered with skin, to which is attached a handle of iron. The latter passes round the forehead of the performer, and is fastened by a cord, passing round the head. The



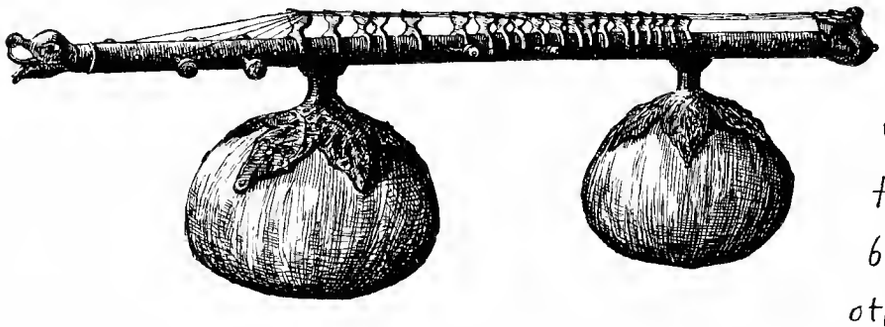
$7\frac{3}{4}$ x 6 in. Madras.



11. Drum The body of wood; the heads of skin, braced with cords. H. 15 in. D. 9 in.

12. Pukhwaj Drum. The body made of a log of wood hollowed. The heads braced with strips of skin. L. 20 in. D. 8 in. Madras

13. Vina. A bar of hollow bamboo, to which are fastened two empty gourds. Strung with 8 wire strings of which 5 pass over a series of movable frets,



22 in number, upon the top of the bar. The other 3 pass over single fixed bridges, 2 on one side and one on the other. In playing, held diagonally across the breast, with the upper gourd over the left shoulder, and the lower under the right arm. The first and

third fingers of the hand are furnished with little plectra. L. 5-6 in. H. 14 in. Calcutta.

14. Drum. Wood, bound with strips of skin. Painted with bands of bright color. H. 10 in. D. 7½ in.

15. Poongi (or Magoudi.) A gourd, the small end of which is pierced to make a mouth-piece, and in which are inserted 2 bamboo tubes. Used by the snake-charmers. 20 in. x 4. Calcutta.

VI.

HINDU MUSIC.

THE peninsula of Hindustan covers an immense area, and embraces a wide range of climate, — from the extreme cold of the Himalayas, to the tropical heat of Ceylon. It is inhabited by a vast number of different tribes and races. The Hindu proper jostles against the Turk, the Persian, the Rajpoot, and the Sikh. Every grade of civilization is represented, — from the savage tribes still dwelling among the hill regions, and in the jungle, to the high-caste and highly cultured Brahmin. Nor is there any greater uniformity of religion. The Brahmin, the Buddhist, the Mohammedan, and the Christian are found side by side. It is not strange that a country, including such varieties of climate, race, civilization, and religion, should offer rare opportunities for the musical student.

In passing from China and Japan to India, it becomes apparent at once that here music must occupy a very different footing, finding in "the country of the lotus-flower and the gazelle" a far more congenial soil than among the prosaic and unemotional peoples of the North. The contrast between the two is indeed a striking one. While the Chinaman makes of his music a matter of science, and an agency for moral improvement, with the Hindu it is pre-eminently a thing of the emotions. "Science has nothing to do with it; its only vocation is to delight the imagination."[1] Even the theory of Hindu music is wrapped in a cloud of mystical and romantic legends. The very names of the early musical treatises, such as "The Sea of

[1] Ambros, i. p. 471.

Emotions," "The Mirror of Melodies," suggest an unbounded play of the fancy.

In entering upon this attractive field, the student is confronted with a twofold difficulty, resulting partly from the inherent obscurity of the subject, and partly from the lack of reliable sources of information. Of the many ancient treatises on music, only a few have as yet been translated from the Sanscrit; and even these suffer from the fact that none of the translators were professed musicians. To this cause is doubtless to be attributed the confused, inaccurate, and unsatisfactory way in which Hindu music is treated in many of the musical histories.

The name Hindu is applied to the descendants of that branch of the Aryan family which in prehistoric times overran the Indian peninsula, subjugating the original inhabitants, and implanting upon this foreign soil the old Aryan civilization. The language of this people was Sanscrit; their religion, a form of polytheism. In the centuries which have intervened between that time and our own, the Sanscrit, from a living, has become a dead language; and the early polytheism, with its cheerful nature-worship, has given place to Brahminism, with its iron law of caste. It will not be surprising, therefore, to find that the music of this people has undergone a like change.

The Hindus attribute to their music a divine origin. The legend runs as follows: After Brahma had lain in the egg three thousand billion four hundred million years, he split it by the force of his thought, and out of the two halves made heaven and earth. He then created Manu, who brought forth from chaos "ten heavenly sages." These in their turn created heaven, the gods, and, with other good and evil spirits, the Gandharven and Apsarasen, or genii of song and dance. The latter became the musicians of the gods.[1] But this is not all. The gods themselves

[1] Naumann, i. p. 21; Ambros, i. p. 473.

are represented as musicians. "Nareda is the inventor of the Vina, the principal musical instrument of Hindustan. Saraswati — the consort of Brahma — is the goddess of music as well as of speech; to her is attributed the invention of the systematic arrangement of the sounds into a musical scale. She is represented seated on a peacock, and playing on a stringed instrument of the lute kind. Brahma himself we find depicted as a vigorous man with four handsome heads, beating with his hands upon a small drum; and Vishnu, in his incarnation as Krishna, is represented as a beautiful youth playing upon a flute. . . . Ganesa, the god of wisdom, is represented as a man with the head of an elephant, holding a Tamboura in his hands."[1] Similar mythological associations are connected with all parts of their theory of music.

The Sanscrit treatises carry Hindu music back as far as that of Egypt and China. Indeed, the opinion has been advanced by some scholars that India was civilized before either of these nations, and was the root from which their civilization sprang. Whatever may be the truth of this theory, it is probable, that, in very early times, there was a marked similarity between the music of all three of these countries.[2] Willard[3] has drawn out at some length the comparison between the music of the Hindus and that of the early Greeks, which was principally derived from Egypt. He calls attention to "the same rhythmical measure; the same subdivision of semitones into minor divisions; the same noisy method of beating time, not only with the hand, but also with instruments of percussion, — melody without harmony, in its present acceptation, — and the similarity of the effects said to have been produced by the music of the two nations." I have elsewhere called attention to the theory of S. Isawa, which attributes the origin of

[1] Engel, p. 53.

[2] Ambros, i. p. 475.

[3] The Music of Hindustan, p. 33, in Tagore's Hindu Music from Various Authors.

the music of China and Japan to India. Whatever may be the truth of this theory, the identity of the Chinese pentatonic scale with the oldest of the Hindu scales seems to be established.[1] But leaving the speculations suggested by these facts to the student of comparative history, I shall now attempt to give a brief account of some of the most important facts in the history of Hindu music. The connection between music and poetry seems to have been very close in the early days of Hindu history. The Rigveda itself, the oldest literary monument which has come down to us, contains hymns to the gods, and songs of praise and victory.[2] These hymns, which were intended to be set to music,[3] certainly date back as far as 1500 B.C. (probably earlier), though they were not committed to writing until a later date. They introduce us to a patriarchal state of society, in which the father of the family is also the priest, and in which women are held in exceptional honor.[4] The latter devote themselves to music and the dance. Poetesses also arise from among their number. In these early days the poet is also the composer, producing not only songs and hymns, but also the music to which they are to be sung. The same connection between music and poetry continued down to later times. The early bards, or Rishis, were held in great reverence. Their favorite instrument was the Vina, and to its accompaniment they sang their own compositions and the sacred songs of the gods.[5] The ancient Brahmins threatened with excommunication any of their tribe who should betray the sacred writings or Shasters to any but members of the elect.[6] Thus protected by the power of religious associations, the purity of Hindu music seemed to be assured. But here again, as in the case of China, we meet with a defection from the old standard. A crowd of upstart musicians sprang up, envious of the fame and reverence enjoyed by the masters of the art. Unac-

[1] Naumann, i. p. 21.
[2] Ambros, i. p. 476.
[3] Naumann, i. p. 20.
[4] Fétis, ii. p. 188.
[5] Rowbotham, ii. p. 7.
[6] Willard, p. 27, ed. cit.

quainted with the ancient theories of music, and not having access to the sources of such information, their productions were but poor imitations of the classic models. Though often writing verses and setting them to music, they were not true poets like the old Rishis.[1] In character, as well as in art, they fell below the older musicians. They sought to influence the passions by their performances, instead of ministering to the higher faculty. Music was prostituted to licentious uses, and its professors became known as the most immoral of men. Under these circumstances, men of honor would have nothing more to do with the musical profession. Those who still devoted themselves to such subjects confined their attention to the theory of the ancient music. In India, as in Japan, the theory and practice of music were thoroughly divorced. It is difficult to-day to find anywhere in Hindustan a man who is versed in both branches of the art. The only trace of the old music which survives, save the Sanscrit treatises to which reference has been made, is the popular belief, that, "to be a great musician, a man must live retired from the world, like a Jogee."[2]

The time at which this deterioration in the musical art began cannot be exactly determined. But, unquestionably, the process was greatly accelerated by the Mohammedan conquests of the eleventh century. From this time on, the arts and sciences, purely Hindu, began to decline. Music proved no exception. The Arabs brought with them many of their native instruments, and the character of their music undoubtedly exercised no small influence upon that of Hindustan. Indeed, the similarity between the present Indian melodies, and those of Persia and Arabia, has often been remarked.[3]

[1] Willard, pp. 27, 28. [2] Ibid., p. 29. [3] Naumann, i. p. 28.

THEORY OF HINDU MUSIC.

The general term for music in Hindustan is *Sangita* (Sungeet). The word is derived from the Sanscrit, and refers to the union of song, stringed instruments, and dancing. Native authors, however, divide Sangita into seven parts. The first treats of musical tones and their subdivisions; the second, of melody; the third, of time and measure; the fourth, of dancing; the fifth, of poetry; the sixth, of expression and gesture; and the seventh, of the manner of performing on different instruments.[1]

The gamut is called *Swaragama*, or Surgum, the name being derived from the first four notes of the scale, — *sa*, *ri*, *ga*, *ma*.[2] The number of tones in the simple scale is the same as that in our own.[3] But here the similarity ends. For the Hindu, not content with the more simple division into half notes, subdivides his scale into still smaller intervals. These are called *Srutis;* and twenty-two of them make up an octave. The exact definition of these Srutis has given endless trouble to the students of Hindu music. According to the Sanscrit of the Sangita Ratnávalí, "every distinct audible sound is a Sruti."[4] Again, "a Sruti is formed by the smallest intervals of sound perceivable by the ear. It is of twenty-two kinds," each of which, by the way, has its special name. These twenty-two Srutis are combined in the Hindu scale in the following way: Between the first two notes are inserted four Srutis; between the second and third, three; between the third and fourth, corresponding to our half tone, two; between the fourth and fifth, and fifth and sixth, respectively, four; between the sixth and seventh, three; and between the seventh and eighth, corresponding to our second half tone, two. Here we are confronted

[1] Willard, p. 37.

[2] Fétis, ii. p. 205, Willard, p. 39.

[3] It is characteristic that the Hindu personifies his seven notes under the form of beautiful nymphs.

[4] Tagore: Hindu Music, p. 353.

with the point of the difficulty. If, with Fétis,[1] Ambros,[2] Naumann,[3] and most European students of the question, we assume the twenty-two Srutis to be of equal value, we have a scale in which only the first and fourth correspond to our European scale, and which, therefore, "if not mathematically, is musically quite an impossibility."[4] If, with the Rajah Tagore, and the Hindu authorities, who certainly ought to know, we assume the Srutis to be of unequal value, — being equal in certain fixed cases to a quarter, and in others to a third, of a tone,[5] — we have a scale in which the mathematical difficulties are no less formidable than were the musical difficulties in the preceding. We must leave the reader to make choice between the two theories, the comparative truth of which can only be determined by a series of accurate musical experiments. Whichever may prove to be the true one, certain it is that, in practice, the scale used by the Hindu musicians to-day differs in no degree from our own. This being the case, it makes little practical difference whether, with Ambros,[2] we hold that this results from the unconscious correction demanded by the ear of the performer; or with Tagore, impatient at the mathematics of European critics, maintain that the scale now in use is really the true scale of Hindu theory.

Starting, then, with the seven fundamental tones as given, the Hindu theorists combined these elements, according to three general principles, so as to form thirty-six distinct keys. These principles consisted, first, in successively assuming each different tone of the scale as the base; second, in increasing or diminishing certain of the intervals between the notes by a Sruti; and third, in arbitrarily suppressing certain notes of the scale.[6] The origin of the thirty-six keys is attributed by the Hindu mythology to Krishna, "who

[1] ii. p. 205. [2] i. p. 480. [3] i. p. 21. [4] Naumann, i. p. 22.

[5] Tagore: Hindu Music, p. 355. See, also, by the same author, The Twenty-two Musical Srutis of the Hindus, pp. 29,

[6] The scales of the keys thus formed are printed in full by Fétis in his Histoire de la Musique, ii. pp. 215–219.

brought forth from his five heads five keys named *Raga*, to which his consort Parbuti added the sixth. In addition to these, Brahma himself created thirty subsidiary keys called *Raginis*."[1] This moderate number, however, was apparently far from satisfying the Hindu imagination; for at the time when Krishna dwelt upon the earth as a shepherd boy, they asserted the existence of sixteen thousand keys, which had been invented by as many Gopis, or shepherdesses, each anxious to secure for herself the affection of the charming youth. Theoretically, indeed, this conception is less preposterous than it might appear; for the rigid carrying out of the principles laid down above would, indeed, yield a result not less remarkable. But we are not required to subject the pretty story to any such dry test. The Hindu mythology soon reduced the sixteen thousand keys to nine hundred and sixty, and these again to thirty-six. Even this number proved too many; and Soma, one of the most distinguished ancient musicians, puts the number of those keys which are suitable for practical purposes at twenty-three.[2]

It is with no little diffidence that I approach the subject of the Hindu Rags (or Ragas) and Raginis. Rajah Tagore flatly asserts that the English language contains no word which corresponds to the Hindu *Raga*.[3] The word has sometimes been defined as a certain musical *mode*;[4] but this definition is inaccurate, the true word for mode being *That*.[5] To each That there may be more than one Rag corresponding. Neither is the word *tune*, which has been proposed, quite satisfactory. Perhaps we cannot do better than follow the example of Mr. Hipkins, who defines Raga "as a melody type founded upon the intervals of a mode, and having a succession of notes so arranged as to excite a feeling of the mind."[6] The original Rags were six in number, corresponding to the six primary

[1] Naumann, i. p. 23. [2] Ibid., i. p. 22. [3] Hindu Music, p. 345.
[4] So Sir William Jones: On the Musical Modes of the Hindoos, p. 142, in Tagore's Hindu Music.
[5] Willard, p. 64. [6] Musical Instruments, p. 84.

keys; and the Raginis were thirty, corresponding to the thirty secondary keys. These are divided into various classes, according to the combinations of notes which enter into them. They are regarded with great reverence by musicians. From these original Rags, the number of which is regarded as fixed and unalterable, a number of compound Rags have been derived. Most of these are of comparatively modern date, and may fairly be described by our word *tune*. The fable relating to the origin of the Rags is as follows: The six Ragas, children of Brahma and Saraswati, were genii, who presided over the principal passions. Each of these was married to five Raginis, or nymphs, who presided over the secondary passions. To each of these corresponded one of the thirty-six original Rags and Raginis, and all succeeding ones were their offspring.

Many interesting fables have been handed down to us as to the effect of these early Rags. With each season of the year was associated its special melody, and even to-day it is considered a mark of great musical ignorance for a person to ask for the performance of a spring Rag in autumn, or *vice versa*. The day and the night also had their appropriate Rags. In all this, we see traces of the early nature-worship of our Aryan ancestors. It is related that on a certain occasion a celebrated musician sang the night Rag at mid-day; and so great was the power of the music, that darkness immediately extended as far as the sound of his voice reached. Other Rags had the power to produce rain, fire, and other natural phenomena. By the timely use of the first of these, a female singer is said to have saved Bengal from drought and famine. Perhaps the most interesting legend is connected with the fire Rag. The emperor Akber, it is related, anxious to test the power of this Rag, ordered one of his musicians to sing it. The unfortunate man tried in vain to excuse himself. He finally yielded to the request, and, having bidden farewell to his family, placed himself up to his neck

in the waters of the River Jumna, and began to sing. As the song proceeded, the water began to boil; and, in insupportable agony, the musician begged to be allowed to stop. But the emperor was inexorable. When the fatal song was renewed, flames burst forth with violence from the wretched man's body; and, immersed in water as he was, he was reduced to ashes. Such mighty power was attributed to music by the Hindu legends. But, alas! when we inquire to-day for the miracle-working Ragas, we are referred from Bengal to Cashmere, and from Cashmere again to Bengal, all in vain. These magic melodies have been hopelessly lost.[1]

Having endeavored in this imperfect way to give an account of the musical scale of the Hindus, with its subdivisions and derived keys, and of the Rags,[2] or ancient melodies, I shall dwell very briefly on the time, the pitch, and the notation employed in their music.

It has been asserted that Hindu music has nothing which corresponds exactly to what we call the musical measure,[3] but that instead it is characterized by a certain rhythm incapable of being brought under the laws of musical time. This view has been sufficiently disproved by Fétis. "Not only," says this distinguished author, "did the inhabitants of India possess from the most ancient times words to express the duration of time in music, but they had also signs intended to represent the partial intervals which divide a certain unit of time considered as type of the measure."[4] Unquestionably the metre in which the earliest Vedic hymns were written had an effect upon the rhythm of the accompanying music. Many of these hymns lend themselves easily to musical

[1] Elson, p. 14.

[2] The Rags and Raginis of the present day are described by Willard as having the four following characteristics: (1) They are short, lengthened by repetitions and variations. (2) They partake of the nature of a rondo; the piece invariably concluding with the first strain, and sometimes with the first bar. (3) A bar, measure, or number of measures, is frequently repeated, with slight variations, almost *ad lib.* (4) Much liberty is allowed with respect to pauses, which may be lengthened at pleasure, provided the time be not disturbed. (p. 62.)

[3] Willard, p. 46.

[4] ii. p. 225.

arrangement; others, however, are not so manageable, and must have been chanted in a sort of recitative. Hence may, perhaps, have arisen the idea that in these early melodies the musical measure had no place. For a full discussion of this point, the reader must be referred to the interesting chapter of Fétis.[1]

The present melodies of Hindustan are subject to the same laws of musical value as our own; but, in their execution, much greater liberty is given to the performer, who now hastens, now retards, certain passages, and, again, prolongs or shortens individual notes, in such a way as to express with most force the sentiment of the accompanying words. This freedom has given no little trouble to those European musicians who have tried to reduce Indian melodies to our musical notation. William Hamilton Bird, who at the end of the last century devoted nineteen years to the study of Indian music, speaks as follows: "The Raugnies [Raginis] are so void of meaning, and of any degree of regularity, that it is impossible to bring them into a form for performance by any singers but those of their country (Hindustan); and they appear to be the efforts of men enraptured by words, to which they have added notes as their fancy and amorous flights have dictated."[2]

"The musicians of Hindustan never appear to have had any determined pitch by which their instruments were regulated; each person tuning his own to a certain height, adapted by guess to the power of the instrument and quality of the strings, the capacity of the voice intended to be accompanied, and other adventitious circumstances."[3]

I do not propose here to enter at any length into the subject of the early musical notation of the Hindus. The Sanscrit characters which represent the names of the seven notes are also signs of musical notation. "By substituting long vowels, the time of each note is doubled; and other marks are used for a further

[1] ii. chap. iii. pp. 224 *seq.* [2] Quoted by Fétis, ii. p. 231. [3] Engel: Study of National Music, p. 46.

elongation of them. The octaves above and below the mean scale, the connection and acceleration of notes, the graces of execution, or manners of fingering the instrument, are expressed very clearly by small circles or ellipses, by little chains, by curves, by straight lines (horizontal or perpendicular), and by crescents, all in various positions. The close of a strain is distinguished by a lotus-flower."[1] The exact interpretation of many of these signs, however, is still doubtful; and, in the opinion of Fétis,[2] the secrets of Hindu notation will never be penetrated by Europeans.

It is more than doubtful whether the present music of Hindustan resembles in any degree the ancient music which has just been described. The changes which have taken place in the last eleven centuries, the successive invasions which have desolated this unhappy country, have sufficed to sweep away many of the traces of its early music. Yet, in the opinion of the best authorities, many of the native instruments of India have come down to us almost unchanged; and, in a people with whom tradition has so much power, it is possible that the style of the melodies may have undergone less variation than might seem likely at first thought. In any case, it is interesting to notice that in the last few years there has been a remarkable revival of interest in the old music of Hindustan. In this praiseworthy effort, no one deserves more credit than the Rajah Sourindro Mohun Tagore, whose learned and valuable words on the theory of Hindu music have done much to arouse the interest of European students in this much neglected field. However successful such efforts may be in restoring to our knowledge the ancient music of the Vedas, certain it is that the Hindu music of to-day will merit a more careful consideration than it has yet received at the hands of Europeans. To a brief notice of this subject will be devoted the few concluding pages of this chapter.

[1] Sir William Jones, ed. cit., p. 140.

[2] ii. p. 251.

Of the Hindu music of the present day, European writers have expressed very different opinions. While some of the more superficial have dismissed it with a sneer as barbarous and uncouth, the majority have expressed, in no measured terms, their admiration for the beauty of the Hindu melodies. Not a few travellers have spoken with unqualified praise of the orchestral performances which it was their fortune to hear in India. The latter, indeed, are often very elaborate. Engel[1] mentions the fact that Dr. Campbell once heard an orchestra of more than fifty instruments at one of the theatrical performances in Nepal. The musical drama plays a part of no little importance in the life of India. The Hindu theatre boasts a high antiquity, probably dating back to the third century before Christ.[2] Like the older Greek plays, the early representations were, undoubtedly, based on mythological subjects, and consisted of a union of poetry, music, and dance. Even to-day mythological representations are common in Hindustan; and we are told that the entrance upon the stage of the wise god Ganesa, with his fat paunch and elephant head, is the occasion for no little merriment among the audience.[3]

In Hindustan, as in almost every nation of the world, we find an intimate union between music and religion. The Brahmin has no monopoly of it. In the old Buddhist temples, we find near the entrance a gallery which was evidently used for musical instruments.[3] At the present day this union finds its impersonation in the Bayaderes. These are maidens whose lives are given to music and the dance. They are divided into two classes. Those of the first class are called Devadasi, or slaves of the gods. They are maidens free from all bodily defects, who have been devoted by their parents to the service of the temple, and who live within the sacred precincts. They take part in the processions and festivities

[1] Musical Instruments in South Kensington Museum, p. 135.

[2] Ambros, i. p. 476.

[3] Ibid. p. 477.

of the god whom they serve, chanting choruses in his praise, and dancing before his image.[1] The Bayaderes of the second class occupy an inferior position, and take the place of itinerant musicians, performing either in public places or at private entertainments, as their services may be required.

"There are two systems of music in vogue in India at the present day, — the Karnatik, or southern system; and the Hindustani, or northern. The latter is chiefly in the hands of Mohammedan professors, who appear to have borrowed from the Arabian and Persian systems. The Karnatik is more melodious, and possesses fewer traces of foreign innovation."[2] Even in different provinces, the style of music varies widely; and the character of a melody, no less clearly than the dialect in which it is sung, will serve to indicate the part of India to which it belongs. Many of the Hindu songs are very beautiful, both as to poetry and melody. They vary greatly in character according to the subjects with which they deal. Some celebrate the loves of Krishna; others, the valor of heroes; others still, the pleasures of wine. The love-song is especially popular in Hindustan. Strange as it may appear to our sense, the first advances in affairs of the heart invariably come from the weaker sex. This, perhaps, is only natural in a country where polygamy is the prevailing system. In such a society, it is the man and not the woman who is supposed to dispense the favors of Eros. The general tenor of the love-songs of India is, therefore, that of supplication on the part of women to their lovers, real or imaginary, or of lamentation over the obstacles which prevent their meeting the beloved object.

It is in the field of pure melody that the music of the Hindus excels. Of harmony, in our acceptation of the word, they know little. In this lack consists the chief difference in character between the music of Hindustan and that of Europe. The former may

[1] Naumann, i. p. 33.

[2] Hipkins, p. 85.

well be called the music of the imagination, as opposed to our own which is pre-eminently the music of the intellect. The Chinese, the Hindus, and the Europeans represent, indeed, three distinct stages of musical development. In the Chinese, with his drums and cymbals, his uncouth and monotonous rhythm, we have a music purely sensuous, delighting in musical sounds, in and of themselves. In the Hindu, we rise higher, and find the melody, with its infinite and pleasing variations, appealing to the imaginative faculty of man. In the European, with his complicated harmony underlying, yet not obscuring, the leading musical thought, we reach the highest musical stage, in which, to the pleasure of the ear and of the imagination, is added that loftier enjoyment which comes from the exercise of the highest mental powers.

VII.

INSTRUMENTS OF INDIA.

THE student of musical instruments finds in India a rich field, not only on account of the vast number of specimens which it affords him, but also because of the beauty and variety of their forms. Some of these, the ancient sculptures and paintings at Ajunta show to have remained unchanged for the last two thousand years; others have been slowly perfected from time to time, to suit the special requirements of the music of the day; others, again, are of comparatively recent origin.

It is not easy to draw the line of distinction accurately between these three classes. There is said to exist in the Sanscrit a treatise entitled "Sangita Rathnakara," which contains a full description of the Indian instruments in existence at the time of its composition.[1] But until this has been made accessible to European readers, we can only speak with comparative certainty on the point in question.

India is the cradle of many European instruments, as well as of many of those of other nations. To the Hindus we are indebted for our knowledge of the principle of sympathetic vibration as applied to stringed instruments; and most students are agreed

NOTE. — It is a matter of regret to the writer, that, owing to circumstances beyond control, a very beautiful and complete collection of Indian instruments, with which it was hoped to illustrate the present chapter, had not arrived at the time set for publication. The instruments, thus unfortunately delayed, would have derived added interest, from the fact that they were very carefully and kindly selected for the present purpose by the Rajah Sourindro Tagore, the most competent living authority on the music of Hindustan.

[1] Fétis, ii. p. 274.

that the king of all our instruments — the violin — had its first rude progenitor on the banks of the Ganges.

In spite of the undoubted beauty of many of the instruments of Hindustan, we find serious defects in the construction of most of those in use at the present day. These defects are of two kinds; resulting, first, from the unsuitable nature of the material employed, and, second, from actual faults of construction.[1]

In the choice of material, pecuniary considerations play an important part; and the evil resulting from this unfortunate economy is exaggerated by the ignorance of those engaged in the manufacture. There are in India few, if any, professional instrument makers. The work is generally intrusted to carpenters, and other general artificers, who, even if they possessed the necessary ability, "could not afford to waste their time in experiments for the improvement of musical instruments; the number rather than the quality of which would insure the greater gain."[2] Therefore, we are told, the better musicians prefer to patch up and repair the old instruments which have been handed down to them from their ancestors, rather than to attempt the construction of new ones, of the correct proportion of which they are entirely ignorant. Willard has preserved an interesting story,[3] illustrating the ignorance of many of the Hindus as to the effect produced on the quality of the tone of an instrument by the material employed in its construction. A certain Rajah, delighted with the performances of a favorite player upon the Sarungee, presented him with a silver instrument upon which to perform in his presence; supposing, doubtless, that if such beautiful strains could be produced upon a common fiddle of wood, much more striking would be the effect of an instrument made of the more precious substance.[4]

[1] Willard, p. 90. [2] Ibid., p. 91. [3] Ibid., p. 92.

[4] These remarks, it is only fair to say, while of general, are not of universal application. In certain parts of India may be found instruments which compare favorably, as to material and finish, with the best productions of the West. The reader is referred especially to the beautiful illustrations presented by Fétis, of the instruments of Benares, to some of which special reference will be made later.

The Hindus divide their musical instruments into four classes. The first, called *Tut*, includes all stringed instruments, and is again subdivided into two classes (*Angulistata* and *Dhanustata*): the former including the instruments of the guitar family, like the *Sitar*, the *Tamboura*, and the *Vina;* and the latter the instruments of the violin family, like the *Sarungee* and the *Chikara*. The second class is called *Bitut*, and includes all instruments of percussion in which skin forms the vibrating medium; while the third, called *Ghun*, consists of those instruments of percussion in which the vibrating medium is furnished by metal. The last class, called *Sooghur*, consists of wind instruments.[1] I shall consider each of these classes in succession.

I. As the King may be said to be the representative instrument of China, and the Koto of Japan, so the Vina (Fig. 13) stands forth as the national instrument of India. Reference has already been made to the fact that its invention is attributed to Nareda, the son of Brahma and Saraswati, who, indeed, in most illustrations, is represented as playing upon this instrument. For the following quotation from the ancient poem "Magha," we are indebted to Sir William Jones. "Nareda once sat at his Vina, wrapped in deep contemplation, when suddenly the gently moving zephyrs drew forth from the strings sounds that enchanted his ear, and which, proceeding in regular rhythm, varied continually, becoming at each change still more and more beautiful."[2]

The antiquity of the Vina is undoubtedly very great. In the celebrated Sanscrit treatise of Soma, a chapter is devoted to its description. At the present day there are several varieties to be found in India. That in use in Bengal seems to differ very little from the ancient representations which have come down to us. It is thus described by Francis Fowke:[3] "The Been [Vina] is a fretted

[1] I have followed the names given by Willard, p. 93.

[2] Quoted in Naumann, i. p. 20.

[3] On the Vina, or India lyre, p. 194, in Tagore's Hindu Music.

instrument of the guitar kind. The finger-board is twenty-one and six-eighths inches long. A little beyond each end of the finger-board are two large gourds, and beyond these are the pegs and tail-piece which hold the wires. The whole length of the instrument is three feet seven inches. . . . The gourds are very large, about fourteen inches in diameter, and have a round piece cut out of the bottom about five inches in diameter. The finger-board is about two inches wide. The wires are seven in number, and consist of two steel ones, very close together, in the right side, four brass ones on the finger-board, and one brass one on the left side." They are tuned as follows: The two steel strings on the right (treble), to A and its octave below; the four brass strings in the centre (bass), to D, A, E, and C♯, respectively; and the brass string on the left (also bass), to A.

The frets are nineteen in number, varying in length from one and one-eighth inch to seven-eighths of an inch. They are fastened to the board with wax by the performer himself, who, in this arrangement, is guided entirely by ear. Any little inaccuracy is corrected by the pressure of the fingers. Indeed, in long notes, the player is very apt purposely to vary the pressure; thus producing an effect not unlike the close shake on a violin, though, owing to the extent of the variation, which seems often not less than half a tone, far less agreeable to our ears.

In playing, "the Been is held over the left shoulder; the upper gourd resting upon that shoulder, and the lower one upon the right knee." The frets are stopped with the left hand, the first and second fingers being principally used. The little finger is sometimes used to strike the left-hand string. The fingers of the right hand are used to strike the remaining strings. The four strings on the finger-board are played by the first and second fingers, protected with little wire caps. The strings on the right side are played by the fourth and fifth fingers. The third finger is never used.

This, according to Fowke's description, is the Vina of Bengal, or classical Vina. The specimen in the present collection (Fig. 13) differs from the foregoing in that it has eight strings instead of seven, of which five pass over the frets on the finger-board. Of the proper tuning of the additional string, the writer is ignorant. The frets, moreover, are twenty-two in number, instead of nineteen. In all other respects the instruments are identical.

A more modern form of the Vina is that of Benares, more properly called *Been*. The upper half of this instrument is not unlike that of the one which has just been described; but instead of the lower gourd, the instrument terminates in a pear-shaped body not unlike that of a Tamboura. The strings are eleven in number; two of the pegs being inserted in the left side of the handle, and the remaining nine in the right side. The latter are set at regular intervals, the first being only a short distance removed from the body. The frets are twenty-two in number, and, unlike those of the ordinary Vina, are fixed. They give the regular chromatic scale, save that the notes F and G are lacking in the upper octave. The two strings on the left side are played with the fingers of the left hand, and the three following with the fingers of the right hand. The remaining six are not touched by the fingers at all, but sound from sympathetic vibration.

In the Province of Delhi there is found a third variety of Vina, differing considerably from both of those which have been described. This is not more than a foot and a half long. It has three strings, which pass over seven movable frets. The resonant gourds are wanting.

Another important instrument of the first class is the *Tamboura*, or Tumboora. This is one of the most ancient instruments of India. Its primitive name is unknown, as the word "Tamboura" is of Arabic origin; but it may, perhaps, be derived from the proper name of one of the Gandharvas, or divine musicians of Hindu mythology.[1]

[1] Fétis, ii. p. 281.

There are two chief varieties of Tamboura. The first is a kind of rude guitar, with a long, thin handle and body of wood covered on both sides with snake-skin. It is strung with three strings, which pass through a little ivory bridge about three-quarters of the distance up the handle. This rude instrument, which to-day is found only in the hands of itinerant musicians of the lowest character, has played no mean part in the musical history of the world. "In this instrument," says Fétis, "we must, perhaps, recognize the earliest Aryan conception of a sounding body with vibrating strings, and see in it the source of the instrument of the same kind, so frequently met with in Egyptian antiquities."[1] In its simple form may probably be found the prototype of all the Persian and Arabian instruments of the Tamboura family. At a later period its use was introduced into China, where it is now played under the name of San Heen. (See Fig. 1, China.)

The more common form of the Tamboura differs considerably from that which has just been described. The body of this is usually made of two-thirds of a large gourd, the top of which is covered with a thin board. It has a long, slender handle, without frets, ordinarily bent back at the head.[2] It is strung with four wire strings, — one of brass, and the other three of steel. Sometimes it has but three strings. "It is tuned to one chord in whatever key is required, — generally of C, — and the finger passes rapidly across the strings; or the notes are played separately or quickly, so as to form the chord in vibration."[3] The Tamboura, like the Samisen of Japan, is used principally to accompany singing, and especially to fill up the pauses between the strains. It is employed equally by Hindus and Mohammedans. The accompaniment is generally of the most simple kind, as the singer prefers to trust as far as possible to the charms of his voice alone.[4]

[1] ii. p. 282. [2] This is not the case, however, with the specimen (Fig. 2) in the present collection.

[3] Capt. Meadows Taylor: On Col. French's Collection of Indian Musical Instruments, p. 253, in Tagore's Hindu Music.

[4] Ibid., p. 254.

In the province of Delhi we find an instrument called *Toumourah*, which, while having a name very similar to the preceding, seems in construction rather to belong to the family of Vinas. It has a long, thin handle, and a body somewhat resembling that of the Vina of Benares, though more pointed at the bottom. It is strung with wire strings, of which three are played with the fingers, and the rest sound from sympathetic vibration.[1]

One of the most important instruments of the guitar class in India is the *Sitar*. This is said by Willard[2] to have been invented by Umeer Khosro (Amir Khusru), who lived in the thirteenth century. According to Tagore,[3] however, the instrument existed long before Khosro's time, under the name of *Tritantri Vina;* and he was responsible only for its improvement, and for giving it its present name. The word Sitar itself is of Persian origin, and means three-stringed (*Seh*, three; and *Tar*, a string).[4] Varieties are found, however, with five and seven as well as three strings. The ordinary Sitar has five strings, of which three are of steel, and two of brass. It has eighteen movable frets, by changing the position of which the key may be altered. Its capacity for execution is considerable, especially in chromatic passages. It is almost always used for solo purposes, though Capt. Taylor[5] speaks of having heard it used by Rajpoot minstrels to accompany their songs.

The several varieties of the Sitar differ greatly in form as well as in the number of strings. Two of the most beautiful are the Sitar of Benares and the Sitar of Dekan-Dedjapour. The former of these is remarkable, from the fact that two of its seven strings are attached to the same peg, and tuned in unison. It has a long handle with seventeen frets, and the shape of the body is not unlike that of the lower half of the European guitar. The Sitar of Dekan-

[1] There is a beautiful drawing of the Toumourah on p. 284 of vol. ii. of Fétis.
[2] p. 98.
[3] Short Notices of Hindu Musical Instruments, p. 40. See also Hipkins, p. 83.
[4] Fétis, ii. p. 289.
[5] Hindu Music, p. 254.

Dedjapour, indeed, is shaped almost exactly like our guitar.[1] Like that of Benares, it has six pegs and seven strings. Variations of the Sitar are the *Kuchwa*, the *Soorsringa*, and the *Taoosee*. The first is described by Capt. Taylor as differing from the ordinary Sitar, "not only in respect to size and power, but in having two strings only to play upon, tuned in thirds, from strings in the centre, which are tuned to the chord of the key or primary note; and two smaller strings at the side, which represent a high octave, and can be struck as necessary."[2] The Soorsringa (Fig. 1) has sixteen frets and eight strings; "six from the top and two at the sides, which lie under those played upon, and are used in combination with them for peculiar resonant effects."[3] Both of these instruments are rare. The Taoosee has seventeen frets with six playing strings. Below these are eleven or twelve strings of fine wire, tuned to eleven separate notes in the direct scale, and sounding from sympathetic vibration.

The *Rabab* or *Rubab*, as its name indicates, is probably of foreign origin. Unlike the instruments of the same name, so common in Syria, Egypt, and Arabia, it does not belong to the violin, but to the guitar class. Fétis conjectures that it may have been turned from its original use. In shape, the present Rabab somewhat resembles the Spanish guitar, though the body is deeper. It has six playing strings and seven sympathetic strings. It is much used in Persia, Afghanistan, and the north-west provinces of India.[4]

There are no indigenous instruments of the harp family in Hindustan, though a few have been introduced from Burmah.

We shall next consider the instruments of the violin class. In India, as has already been said, we find the origin of "that powerful interpreter of musical sentiment called the bow."[5] In vain we search among the ruins of the ancient monuments of Assyria,

[1] See Fétis, ii. p. 289 (Fig. 44).
[2] Hindu Music, p. 255.
[3] Taylor, p. 255.
[4] Tagore: Short Notices, etc., p. 32.
[5] Fétis, ii. p. 291.

Egypt, Greece, and Rome, for any traces of it. All attempts to identify it with the plectrum have failed. "Statues, bass-reliefs, and the paintings on Greek vases, show us innumerable representations of the plectrum; and in all these we see only a piece of wood, bone, or ivory, either terminated by a hook with which to pluck the strings, or intended to strike them with its back."[1] Beyond question, India is the cradle of the violin; and the rude Hu-chin of China and the royal Stradivarius are alike derived from that common source. "This," says Fétis,[1] "is no matter of conjecture, for the Sanscrit has names both for the bow and for the sonorous bodies intended to vibrate beneath its stroke." For the bow itself, we find three distinct names (Kôna, Gârikâ, and Parivâdas). While the exact epoch at which these words were first used cannot be determined, they are certainly very old, dating back probably two thousand years, at least.

The oldest of the stringed instruments played with a bow is the *Ravanastron* (Rabanastron). This consists of a hollow wooden cylinder, four inches long by two inches in diameter, the top of which is covered with snake-skin. It has a long wooden handle, slightly curved back at the upper end, in the rear of which are inserted two long wooden pegs. The two strings are made of the intestines of the gazelle, and pass over a long, low wooden bridge. The bow is of bamboo and horsehair. The use of this instrument has long since been abandoned to the lowest class of the population, and to the poor Buddhist monks, who carry it with them as they go from door to door asking for alms. In China, however, the same instrument appears under the name of *Ur-heen* (Fig. 9), and its use is very general.

Of a later origin than the Ravanastrom is the *Omerti* (Amrita), a rude fiddle in which the body is formed of half a cocoanut-shell covered with gazelle-skin. This instrument also, like the Ravan-

[1] Fétis, ii. p. 291. Engel, while dissenting from this opinion, and believing the bow to have been developed from the plectrum, adds, "Howbeit, it is not improbable that the fiddle-bow originated in India, and came thence to us through Persia and Arabia. Also the ancient Greeks and Romans may have had it." (See his learned discussion in The Violin Family, pp. 5–12.)

astron, has passed into China.[1] Rude as such forms appear to us now, surely none were more pregnant with mighty possibilities. From the Ravanastron to the Stradivarius the road is a long one, and with many turnings; but it cannot be mistaken.

Of the other instruments of the violin class, the most important are the *Sarinda* (or Saroh[2]), the *Sarungee*, and the *Chikara*. Compared with the Ravanastron, these are of relatively modern origin, though the Sarinda certainly dates back farther than the eleventh century.[3] The lower part of this instrument is covered with gazelle-skin; while the upper part, which is crescent-shaped, is left open, so that the whole interior of the instrument is visible. The strings are three in number, passing over a bridge of medium height.

The Sarungee is the ordinary violin of India. We find several shapes of this instrument. In that of Benares, the face somewhat resembles that of one of our own violins, in which the upper third has been removed. The body, however, is rounder and fuller, gradually diminishing at the upper end to form the handle. It has three strings of gut, and five sympathetic strings of wire.[4] Another form of the Sarungee has an oblong body, and is strung with four gut and eleven wire strings. The two lowest are tuned to Khuruj, or the keynote, and the others to a perfect fourth. In playing, it is held in front of the body like our violoncello. The hairs of the bow are very loose, and are tightened by the hand in playing. The tone of this instrument is very sweet, and it is often used by the Hindu Nautch girls to accompany their songs.[5] Many Europeans have remarked upon the power and quality of the Sarungee. Capt. Taylor states that a friend of his, "an excellent

[1] A very good idea of the Omerti may be obtained from Fig. 15, under China.

[2] For a clear idea of this somewhat complicated instrument, the reader is referred to the beautiful drawing in Fétis, ii. p. 296.

[3] Fétis, ii. p. 295.

[4] Fétis considers this the most perfect of all the Hindu instruments.

[5] Tagore: Short Notices, etc., p. 33.

musician and violin player, used to prefer one of these instruments to his own violin for concerted pieces, in which the violin took a soprano part."[1] The *Sarrooda* is a somewhat larger form of this instrument, which takes the part of tenor or second fiddle in concerted music. In Madras we find also a kind of bass viol, called *Kunjerry*.[2]

The Chikara is the ordinary fiddle of the common people. It is "mostly to be seen in the hands of strolling players, or mendicants, reciters of short plays or poems, and ballad singers."[3] Its strings are generally of horsehair.[4] Fétis also mentions a large variety of Chikara found in the province of Madras, which has four strings, of which three are played by the bow, and the fourth, which passes over the side of the bridge, is sounded by the fingers.[5]

The Indian instruments with understrung wires are of special interest, as they undoubtedly explain the origin of those European instruments, in which, as in the Viole d'Amour[6] and Baryton of the seventeenth and eighteenth centuries, and the Norwegian violin of the present day, the tones of the ordinary strings of gut are re-enforced by the sympathetic vibration of a series of fine wire strings passing beneath the others, and tuned at harmonic intervals. In the opinion of Fétis,[7] the knowledge of this principle passed from India to Constantinople, whence, in the seventeenth century, it penetrated into Hungary and Bohemia, and so was carried to the rest of Europe.

II. Instruments of percussion have always been very popular in India. As long ago as the beginning of our era, Strabo mentioned the fact, that, when the Indian kings went out to hunt,

[1] Hindu Music, p. 257. [2] Fétis, ii. p. 299. [3] Taylor, p. 257.

[4] Tagore: Short Notices, etc., p. 5.

[5] Fig. 2 in the present collection so closely resembles the drawing of this Chikara, given by Fétis on p. 287 of his Histoire, that I have been tempted so to classify it in the catalogue. It is probable, however, that the similarity is deceptive, and that Fig. 2 is rightly catalogued as a simple Tamboura.

[6] See Fig. 9, France, in which specimen, however, the understrung wires are wanting. [7] ii. p. 298.

they were preceded by a band of drummers and cymbal-players.[1] The same fondness for instruments of percussion still distinguishes the Hindu people. In his "Short Notices of Hindu Musical Instruments," the Rajah Tagore mentions no less than sixty-five different varieties of instruments of percussion. An exhaustive description of all these, even if possible, would only weary the reader. I shall therefore confine my notice to a few of the more important.

As has been said, the Hindus divide their instruments of percussion into two classes, one of which includes all those which are covered with skin, and the other all those in which metal forms the vibrating medium.

The most ancient of the Hindu drums is the *Mridung* (M'ridang). This is "a hollow cylinder of wood resembling a cask, open at both the ends, which are covered with crude goat's-skin of different thicknesses, so as to produce different sounds. One end has likewise a coating of a composition made of resin, oil, etc., applied to the inside, and is tightened with leather braces like our drums."[2] Fig. 14 is probably a kind of Mridung. The *Dhol* and the *Dholkee* are common forms of drum; the latter, or "little drum," differing from the Mridung in that it is a lighter and more delicate instrument, and is braced with cords instead of leather straps. These instruments are principally used by amateurs, and are either "played by hand as accompaniment to the voice, or struck with a stick when in concert with pipes or loud instruments."[3]

The *Pukhwaj* (Fig. 12) is the standard drum of India. It is ordinarily about a foot and a half long, and nine inches in diameter. It has two heads of skin, — one tenor and one bass, — which are tuned by tightening or loosening the side cords. A piece of dough is usually put under the bass side, which tempers the skin and keeps it in tune. The Pukhwaj is sometimes beaten with rubber-tipped

[1] Strabo, xv. 1, 55, quoted by Ambros, i. p. 474. [2] Willard, p. 95. [3] Taylor, p. 259.

drumsticks, but more often with the palms and fingers of the hand. It is used both to accompany the voice and also in concerted music, and, in the hands of an expert player, is said to yield remarkable effects.[1]

The *Tubla* is also a very popular drum. The body of this is usually made of copper. It is always played in pairs, — one tenor and one bass. It is held in place by a cloth, which passes round the waist, and is beaten with the fingers. It gives a mellow and delicate tone, and, together with the Sarungee, is the instrument *par excellence* of the Hindu dancing-girl.

Other varieties of drum, called *Dak* and *Hoodook*, are principally used by "ballad singers, mendicants, and the like."

The family of kettledrums is well represented in India. They are found of all sizes, from the *Nobut*, or great kettledrum, with its deep, mellow tone, which has given its name to a species of orchestral music, to the *Bahya* and *Jilla*, which are played by the village musicians.

The tambourine family also is extremely popular. Of these the *Duff* and the *Dayra* are the most common. They are beaten both with the hand and with sticks, and their players are said to be very expert. The tambourine is used in processions and festivals of all sorts, and every little village is provided with at least one such instrument with which to sound the alarm in case of attack.[2]

III. The second class of instruments of percussion, and the third of the four classes into which the Hindus divide their instruments, is that of gongs, bells, cymbals, and the like. The first, called *Thalla*, are used principally in temple music, or as calls to sacrifice at different hours of the day. Professional religious mendicants also use a form of gong, especially those who are accompanied by performing bulls and goats. A great gong, called *Kansi*, is used in the Brahmin temples. The bell, or *Gunte*, also

[1] Taylor, p. 260.

[2] Ibid., p. 259.

plays an important part in Hindu ceremonies. Both male and female dancers wear a string of small bells tied round the leg above the ankle. These *Goongooroos*, or ankle bells, give a faint clashing sound as the feet move, serving to keep the time, and forming a not unpleasant accompaniment to the dance-music. They are regarded as the symbols of the dancer's profession, and are, to a certain extent, held sacred. After a dancer has once been solemnly invested with these bells, it is impossible for him or her ever to abandon the profession so adopted. So much is this the case, that, when a Hindu desires to express that a person has taken an irrevocable step, he speaks of him as "having tied on the bells."

I will not attempt to describe the various kinds of cymbals and castanets which are found in India. The former are made principally of silver or bell-metal, and, in the north of India, are frequently used in religious ceremonies. Capt. Taylor[1] mentions a small cymbal used in the south of India, consisting of two cups of bell-metal, united by a cord, which, in the hands of an adept player, are said to yield remarkable effects. Castanets, both of wood and metal, are in common use. Those used by the Bayaderes in their dances are made of metal, and are called *Tal* (Fig. 7). In India, also, we find the cradle of the instruments of the xylophone and harmonicon family, whence their use has passed into Siam (see Fig. 1) and Burmah, and even into China and Japan (Fig. 12). Of these the most important has seventeen keys, and is called *Kinnery*.[2]

IV. Last of all I shall consider the wind instruments of India. The flute (*Bansee* or *Bansulee*) was formerly a very favorite instrument, and in mythological days is said to have produced wonderful effects in the hands of the god Krishna. It is little used to-day by professional musicians, though its employment in certain ceremonies is customary. Especially is this the case at the feast of Nila-Pooja,

[1] Taylor, p. 244.

[2] Fétis, ii. p. 308.

"when the bigots run sharp-pointed iron rods through their tongues, and through the muscular part of the breast, the back, the arm, the skin of the forehead, etc., and dance with stretched cords passed through the integuments of the sides."[1] It is also said that the Bansee is used with remarkable effect in the taming of elephants.

There are a number of instruments of the flageolet family in India, three of which are represented in Figs. 4, 5, and 6. The *Alghosah* (Algooja) of Bengal belongs to this class. Still more numerous and important are the Oboes. Of these the oldest is the *Ottu* (Otou), which is used to accompany the dance of the Bayaderes. This instrument is a simple tube without finger-holes, and yields but a single tone. Its players are said to have the remarkable faculty of holding the breath and prolonging the tone almost indefinitely.[2] A more important instrument of this family is the *Toomerie Nagassaran* (Fig. 9), which has twelve finger-holes, and is made of wood mounted with brass. It is found in the province of Madras. Other instruments, differing only in size and in the number of finger-holes, are the *Zourna*, the *Shena* (Shanai, Soo-nai), the *Mukha*, etc.[3] The use of these instruments is almost universal. "They are, in fact, the only regular out-door instruments of Indian music, and are employed on all occasions, whether in domestic or public religious ceremonials, processions in festivals, temple music, and the like. . . . In the Mahratta country, the simple melodies of the people, joyous or plaintive, are performed with a style of execution which is often surprising; and combinations of musical effect are introduced which are equally curious and interesting."[4]

Several varieties of bagpipe are found in India. A rude specimen, the *Zitty* (or Titthi), of Madras, is shown in Fig. 8. Somewhat similar in appearance is the *Poongi* (or Magoudi, Fig.

[1] Solvyns: The Costume of Indostan, plate xxviii. [2] Fétis, ii. p. 301. [3] Engel, p. 168. [4] Taylor, p. 250.

15), a peculiar instrument used by the snake-charmers. This consists of a hollow gourd, in which are inserted two bamboo pipes, which are fastened by wax or some resinous substance. The performer blows through a mouthpiece cut in the end of the gourd, opposite to the pipes. Although both the latter are furnished with finger-holes, only one of them is used in playing; the holes of the other, which serves as a drone, being mostly closed with wax. The Poongi is capable of producing about nine different notes. Strange as it may appear, competent witnesses testify to the remarkable effect produced upon all kinds of snakes, and especially upon the cobra, by the plaintive tones of this instrument.

A variety of the Poongi, called *Toomerie*, is played by the nose instead of the mouth. Indeed, according to certain writers, the use of the nose-flute originated in Hindustan, and was thence carried to the Fiji Islands[1] and other places, where it is now found. The explanation of its origin is to be found "in the religious doctrine of the Brahmins, that a person of superior caste is defiled by touching with his mouth any thing which has been touched by the mouth of an inferior."[2] In this connection we may mention another curious instrument of Hindustan. This is the *Nyastaranga* (or Upanga), consisting of a pair of pipes, the extremities of which are placed on the throat, upon the vocal chords, and which, when breathed upon strongly, produce a clear, reedy note.[3] The same effect is produced by placing them upon the cheeks or the nostrils.

The brass instruments of India are principally horns and trumpets. The former are of various sizes and shapes, and are used principally for signals, watch-setting, processions, and temple services. Wailing blasts for the dead are played upon them, as well at the funerals of Hindus of the lowest caste as at the cremation of Hindu princes.[4] The most important of the numerous trumpets is the *Kurna*, which is used chiefly in religious festivals and processions.

[1] See Oceanica, Fig. 2. [2] Engel, p. 166. [3] Tagore: Short Notices, etc., p. 28. [4] Taylor, p. 247.

It yields only a few hoarse bass notes. It is considered by the Brahmins as the most ancient of all musical instruments, and its sound is supposed to be especially pleasing to the gods. The *Tootoore* is a small tenor trumpet, used for like purposes and on like occasions with the Kurna.[1] As in China and Japan, so in India also, we find a rude conch trumpet, which is "sounded during religious ceremonials, in processions of Hindu worship, and before idols."[2]

Here I conclude my account of the musical instruments of Hindustan. While far from claiming to have exhausted the field, I may yet hope that the survey has been complete enough to give the reader some idea of the wealth of invention and resource shown by this wonderful people in this most interesting field. In spite of all that has been written on the subject, much still remains to be learned concerning the musical instruments of India. If the present chapter shall succeed in arousing any new interest in this important subject, it will not have been written in vain.

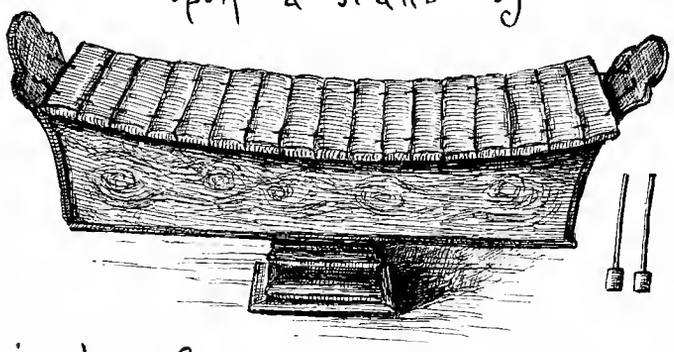
[1] Other forms of trumpet are described by Fétis on pp. 304, 305.

[2] Taylor, p. 262.

SIAM AND BURMAH.

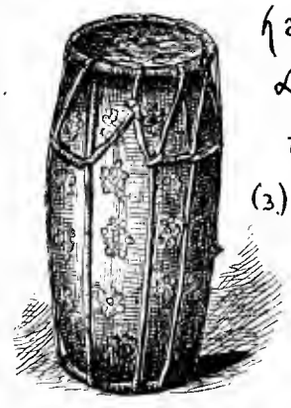
Siam

1. Ranat, a species of Harmonicon, consisting of seventeen strips of wood, united by cords, and resting upon a stand of hard wood. The strips are slightly rounded on the upper surface, and vary in length, each strip giving a different note. They are beaten by two wooden hammers. H. at centre 11 in. L. 44 in Keys vary from 16½ to 14 in.



(2.)

2. Klong Khëk, or Malay drum



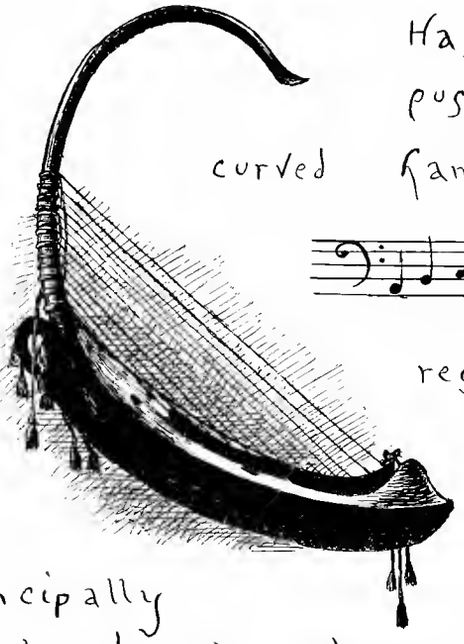
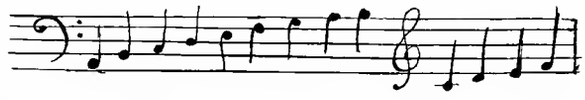
(3.)

H. 26 in. D. 11½ in.

3 Taphone (Ta-P'ohn). Set horizontally upon a stand, and beaten with the fingers. The body red, with gilt figures. H. 21 in. D. 11 in.

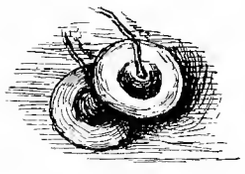
Burmah

1. Soung. Boat-shaped harp. The body wood, with a sounding-board of tough buffalo hide. Has 13 silken strings tuned by pushing them up or down the curved handle. Following is the scale.

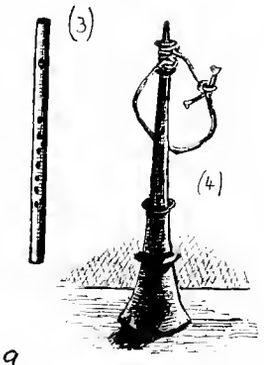


The handle rests upon the left arm, while the right hand touches the strings. Used principally to accompany songs, and played only by young men. L. of body 36 in., of handle 30 in. W. 6½ in. Th. 4 in.

2. Cymbals. Small pair, made of brass. D 4½ in.



3. Puloay. Flute. Seven finger-holes in front, and one behind. The best Puloay player always leads the orchestra. L. 13½ in.

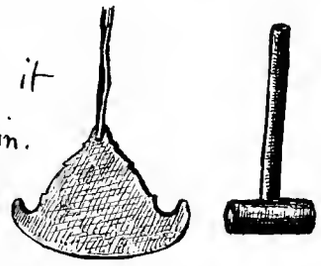


4. Oboe. Wood, with reed mouth-piece and base of brass, both movable. Yields a shrill and piercing tone. Seven finger-holes in front, and one behind. L. 19¾ in. D. 4¼ in.

5. Drum. The body wood, bound with strips of skin. Head of skin. One of a series of nine different sizes. Used at funerals, priest-makings, etc. H. 13 in. D. 7½ in.

6. Cocoanut Banjo. Made of a cocoanut shell, covered with skin, painted red. Handle of bamboo. Has two wire strings. Used by the snake charmers, who extract from it very fair tunes. L. 16½ in. D. 4½ in.

7. Kyeezee. A plate of sonorous brass, which when struck with the wooden mallet, yields a clear and prolonged tone. Used by the righteous Buddhists to attract attention to their offerings. H. 5 in. W. 8 in.



VIII.

MUSIC AND INSTRUMENTS OF SIAM.

IN his chapter on the music of Indo-China, Fétis[1] laments the lack of accurate information on the whole subject of the music of Siam, Burmah, and the neighboring countries, and expresses the hope that in the near future a closer acquaintance with the music of these peoples may render possible a more satisfactory treatment of the subject. It is only very recently that this hope has seen its fulfilment, as far as Siam is concerned. At the International Inventions Exhibition, held at South Kensington, London, in 1885, there were exhibited, through the kindness of the king of Siam, specimens of all the principal musical instruments in use in that country; and a well-trained Siamese orchestra gave those interested in the subject an opportunity to hear and study many of the most interesting Siamese melodies. The information contained in the following chapter is largely drawn from a little pamphlet, published in connection with this exhibition, entitled "Notes on Siamese Musical Instruments." The writer begins by calling attention to the almost universal ignorance which prevails among Europeans as to the whole subject of Eastern music. "To most of those that gazed at the Siamese performers," he remarks, "such music was wholly unintelligible. It seemed, no doubt, to them as though fitful shreds of melody were wantonly immersed in waves of riotous sound. The press, which in these days employs men of great experience

[1] ii. p. 348.

and culture, spoke of the band in accents of compassionate good-nature. The public, to whom this music came as a surprise, flocked to each performance with the highest expectations; but the great majority left with an impression that they had listened to the capricious volubility of a strange confusion of sound."[1] In spite, however, of the little favor which it found in the ears of its Western hearers, in the opinion of Mr. Alexander Ellis[2] — a very competent authority — Siamese music must take a high rank in the scale of that of extra-European nations. Not only do we find in the national music of the Siamese evidences of a very advanced musical development, but the character of their musical instruments, no less than the elaborate nature of their orchestral performances, bears witness to a remarkable state of musical proficiency.

The music of Siam is far more closely allied in character to that of Hindustan than to that of China. Unlike their neighbors, the Anamese and Javanese, who use the pentatonic scale,[3] the Siamese have seven notes in their scale. "The ideal Siamese scale," says Mr. Ellis, "is an equal division of the octave into seven parts: so that there are no semi-tones and no tones, when the instrument is properly tuned, but only intervals a trifle less than one and three-quarter semi-tones; for seven of these would give twelve and a quarter semi-tones, just over an octave."[4] The same name is applied by the Siamese both to a note and to its octave. "There are three octaves, or rather septimes of seven notes, called upper, middle, and lower septime. The eighth note is reckoned as part of the next septime."[5] Before beginning, the conductor announces in what septime the piece is to be played.

In spite of their fondness for music, the Siamese have not developed any musical notation. "All their music is learned by ear, — a method of teaching which is considered safer and more

[1] pp. 8, 9. [2] Quoted in Notes on Siamese Musical Instruments, p. 26.
[3] Fétis, ii. p. 332. [4] Quoted as above, p. 24. [5] Ibid., p. 23.

expeditious. Music thus learned is handed down traditionally, but not necessarily from father to son."[1] A good ear and a prodigious memory are, therefore, in Siam, the two indispensable requisites for a successful musician. The boys begin to study music at a very early age, and devote themselves to the pursuit of their art with remarkable assiduity. We are told that the "skill, nicety of execution and precision, both as regards time and rhythm," displayed by a skilful Siamese in playing his national instruments, may well excite the surprise of even the best European performer.

There are, in Siam, musical societies, or guilds, which profess to train musicians for public and other performances. But they are not very prosperous, owing to the competition of private orchestras. The latter absorb all the best musical talent; and we are told that there is no little rivalry, among those who can afford it, for the possession of the best band. In Siam, however, the happy practice obtains, among the noblemen and other wealthy and distinguished persons, of admitting the general public to their private concerts, when any thing of special merit is to be performed. In this way the musical taste is kept from degenerating. The Siamese are, indeed, a thoroughly musical people. Not only has music a prominent place in theatrical performances, and at all public feasts and shows, but almost every house has its *Ranat;* and the number of other instruments is limited only by the means of the householder. Women, as well as men, are accustomed to play on some instrument. Singing is also popular with both sexes, both as a recreation and as a profession. Many of their songs have a melancholy and plaintive character, whereas their orchestral music is usually sprightly and cheerful.[2] Chorus singing is frequent, but is always in unison. Indeed, Siamese music is no exception to the general rule which we have thus far seen characterizing all the nations of the East. Of harmony they know nothing;

[1] Ellis, quoted in Notes on Siamese Musical Instruments, p. 24.

[2] Fétis, i. p. 342.

and the effect produced by the performance of a Siamese orchestra has been compared, by Mr. Ellis, to that probably produced upon the contemporaries of Daniel, when they "heard 'the sound of the cornet, flute, harp, sackbut, psaltery, dulcimer, and all kinds of music' playing together, and relying for their effects not on harmony, but on diversity of quality of tone for the same note, or its octave." "We may thus learn to see," continues Mr. Ellis, "that extensive pieces of music can be put together, with a full appreciation of parts to a whole, relying solely upon melody without harmony, and come to understand that the latter art, however indispensable to modern European music, is not essential to the existence or enjoyment of music in general."[1]

SIAMESE INSTRUMENTS.*

The Siamese distinguish two general kinds of instruments, — Mahoree, or "light-sounding" instruments, which are principally used for in-door performances; and Bhimbhat, or "heavy-sounding" instruments, which are used for out-door purposes. These are also the names of the two principal orchestras of Siam. The Mahoree, which performs in-door music of the highest class, consists of seven stringed instruments, three wind instruments, and eleven instruments of percussion, — twenty-one in all. The Bhimbhat, which corresponds to our brass band, and which gives a far greater volume of sound, is composed entirely of wind instruments and instruments of percussion, combined in the proportion of three to sixteen. The very large preponderance of the latter strikingly reminds us

* Note. — The writer regrets that the illustrations which accompany this chapter and the following should be so incomplete. Those who are interested in pursuing the subject further are referred to the excellent illustrations in the little pamphlet referred to on Siamese Musical Instruments. Hipkins also devotes plates 44 and 45 of his elaborate work to the subject of Siamese instruments.

[1] Quoted in Notes on Siamese Musical Instruments, p. 26.

of the neighboring countries of China and Japan. Other forms of orchestra are the Klong Khĕk, which is composed partly of Malay instruments; and the Lao Phān, the instruments of which are peculiar to the North of Siam.

The characteristic instrument of Siam is the *Ranat*, or harmonicon (Fig. 1). There are four varieties of this instrument, of which two are made of metal (Ranat Thong and Ranat Lek), and two of wood (Ranat Ek and Ranat T'hoom). "The principal instrument of the Siamese," writes Mr. Ellis, "by which all others are regulated, is the Ranat Ek, or treble wooden harmonicon. This consists of bars of wood, slightly rounded on the upper surface, suspended by strings passing through their nodes, and strung over what may be called the elevated prow and stem of an ornamental boat or cradle, which serves as a resonance chamber, and also as a storage place for the bars themselves when rolled up, and the hammers by which they are struck. The wooden bars are tuned roughly by measurement, and hollowing out at the back between the nodes as in the Javese gambangs,[1] and more accurately by sticking lumps of wax mixed with lead and oil to the under parts of the bars beyond the nodes. The intonation depends especially on these tuning lumps. In attaching these lumps, the Siamese tuner seems to be guided solely by ear; and the peculiar intention of their scale rendering this very difficult, the result obtained is by no means always perfect."[2]

The Ranat T'hoom differs from the Ranat Ek only in being an octave lower. The latter is the treble instrument, the former the bass.

The only difference between the two metal harmonicons, the Ranat Lek and Ranat Thong, is as follows: The first has seventeen keys made of iron, and the second has twenty-one keys of brass. "The bars [of these instruments] are not strung, but rest on a ledge

[1] A kind of harmonicon. [2] Quoted in Notes on Siamese Musical Instruments, pp. 13, 14.

passing under the nodes."[1] They are tuned by filing the keys, and retain their pitch better than the wooden harmonicons.

Instruments of the gong class are very popular in Siam. Not only do we find many single gongs, differing very slightly from those in use in China, but the Siamese combine a number of individual gongs into a peculiar instrument called *Khong Yai*. This consists of a circular frame-work, in which are suspended by strings sixteen gongs made of an alloy of brass. In the middle of the circle "the player squats, so that he can reach the whole scale, which, on account of the width of the Khongs, would be too long if displayed in one line like the bars of the Ranat. The sound [of the gongs] is bell-like, but, like [that of] bells, full of inharmonic proper tones. They are tuned by lumps, like those of the Ranat, placed inside the bell."[2] A smaller instrument of the same kind, called *Khong Lek*, is made up of twenty-one gongs.

Among the many varieties of drum used by the Siamese, the following may be mentioned: First, the *Talot Pote*, a small hand-drum principally used in the Laos states; second, the *Taphone* (Ta-P'ohn) (Fig. 3), a larger hand-drum, not unlike a small keg, which, when played, is set horizontally upon a stand; third, the long drum, or *Song-nāh*, a third variety of hand-drum, of a narrow, cylindrical shape; fourth, the *Thone*, a small vase-shaped hand-drum, like the Arab Darabukkeh. Of the drums which are beaten by sticks, the most important are the Klong Khëk, or Malay drum (Fig. 2), and the Klong Yai, or kettledrums. The latter are of a very large size, and are played in pairs. They "are tilted slightly, so as to be easily played by one performer with a drumstick in each hand, like our kettledrums. They have a sweet, musical tone. They are tuned by placing, or sticking, a handful of mashed boiled rice at the bottom of the drum."[3]

Other instruments of percussion in common use are cymbals

[1] Ellis, quoted in Notes on Siamese Musical Instruments, p. 15. [2] Ibid., p. 16. [3] Ibid., p. 19.

and castanets. The name for the former is *Charp*. A small pair of metal castanets, called *Ching*, is used by the conductor of an orchestra to keep time during the performance.

The most characteristic stringed instrument of Siam is the *Ta'Khay* (Tuk-Kay), or "alligator." This instrument "has something like a guitar body, and is placed on the ground, the player squatting beside it. He touches the strings on the frets with his left hand, and sounds the string by a plectrum, like a large ivory tooth, which is fastened to his fingers, and drawn rapidly backwards and forwards across the string, so as to produce an almost continuous tone, which is not unlike that of a violoncello."[1] Another instrument of the guitar family is called *Kra Chapee*. This is played with a small piece of horn, and yields fourteen notes.

The most important instrument of the violin family is the *Saw Tai*. "It has a heart-shaped body, with a very long neck and a foot, both cylindrical; the former carrying the pegs for the strings, the latter forming a rest for the instrument when played. The musician squats cross-legged, and holds the Saw Tai at a slight slope. The foot is about twelve inches long, pointed, and sometimes of ivory, beautifully carved."[2] The Saw Tai is usually strung with three strings of silk cord, which are close together at the upper end, "where they pass under a ligature round the top, and then on to the pegs." Like the Rebâb and the Chinese fiddles, it has no finger-board. "The length of the string is, therefore, not limited, as on the violin, by pinching it between the fingers and the finger-board, but by pressing with the whole width of the finger on the strings; and, as this can be done with very different weight, the note is not constant for the same length of string. The string, also, not being sharply limited, the tone is not crisp and well-defined, but rather hazy. Still, considerable execution

[1] Ellis, quoted in Notes on Siamese Musical Instruments, p. 16.

[2] Ibid., p. 21.

is possible."[1] It is played with a bow larger than that of our European double bass. Another kind of three-stringed violin is called *Saw Samsai.* The *Saw Duang* and *Saw Oo* are two-stringed violins, differing only in size. They closely resemble the ordinary Chinese fiddle (see Fig. 9, China).

The principal wind instruments used in Siam are flutes. Of these the most important is the *Pee*, which may be made either of marble, ivory, or ebony. "This is a species of harsh oboe, fit only for playing in the open air. Its effect is that of a very powerful bagpipe. It is a reed instrument, rather thick, with six holes, in groups of four and two, with a considerable space between the two groups: but only three of the first four are covered with the fingers of the left hand; the fourth hole is covered with the forefinger of the right hand."[2] Another similar instrument is the *Peechawar*, or Java flute, which has seven holes, and is generally made of ivory. Flutes of bamboo, with eight and ten holes respectively, are also in use. The Siamese have also a kind of flute, called *Klui*, in which the pitch may be altered by covering one of the holes with a membrane.

A curious solo instrument is found in the northern part of Siam, and in the Laos states. This is the *Phān*, a kind of Pandean pipes, almost exactly similar to that played by the natives of British Guiana (see Fig. 2, South America). The pipes of this instrument are "at least four feet long; and it is blown, or sucked, at a hole coming from the ivory cross band, against which the palms of the hands rest to hold it in position, while the fingers touch the holes in the pipes, which allow the reeds to sound, just as in the Chinese Shêng."[2]

This completes the list of the principal Siamese instruments. It may be interesting, in conclusion, to notice the manner in which they are combined in orchestral playing. In the ordinary band

[1] Ellis, quoted in Notes on Siamese Musical Instruments, p. 21. [2] Ibid., p. 17.

(Mahoree) the disposition of the instruments is as follows: In front are placed the Ranats; in the rear, the wind and stringed instruments, save the Ta'Khay, or "alligator," which is to the left of the audience. The middle row is composed of the drums and gong organs (Klong Yai). In the midst of the orchestra, but slightly to the left, stands the conductor, regulating the time by the tinkling tones of his *Ching*.[1]

[1] See the interesting diagram on p. 23 of Notes on Siamese Musical Instruments.

IX.

MUSIC AND INSTRUMENTS OF BURMAH.

THE Burmese, like the Siamese, are a distinctly musical people. Both men and women are in the habit of singing at their work. Almost every one can play some instrument. As in Siam, every noble supports his private orchestra, to the performances of which the common people are freely admitted. Music takes a prominent place in the processions and ceremonies which attend every important event of life. The sacrificial rites in the Buddhist temples are accompanied by solemn chanting on the part of the priests, and by the dancing of chosen maidens, like the Bayaderes of Hindustan, to the tune of the oboe and of drums. As in the latter country, so here, also, the musical drama is very popular.[1] The Burmese plays, or operas as they should strictly be called, consist of a combination of acting, singing, dancing, and orchestral accompaniment. The dialogue is usually declaimed in a sort of recitative, not unlike that in our modern opera. It is occasionally interrupted by short airs, or by orchestral passages. The subject of the play is usually mythological, the adventures of the hero Rama being especially popular.[2]

The Burmese scale, like the Siamese, consists of seven distinct tones. Accurate experiments are, however, needed to determine the exact intervals between these tones.[3] The scale given by Fétis,[3]

[1] For a description, with quotations, of a Burmese play, see Engel: Musical Myths and Facts, vol. ii. pp. 158 *seq.* See also Shway Yoe: The Burman, vol. i. chap. xxix. pp. 342 *seq.*

[2] Fétis, ii. p. 334.

[3] Ibid., p. 340.

on the authority of Col. Symes, is only approximately correct. Whatever may be true of the theoretical scale, that used in practice probably differs little from our own.[1]

We are told that the royal library at the capital contains a number of theoretical works on music. None of these, however, have yet been rendered accessible to European students, nor is it probable that the natives themselves are any more familiar with their contents. Whatever may have been true of their remote ancestors, the modern Burmese, like the Siamese, have no musical notation. Tunes are handed down by ear from generation to generation. There are not even any professional music-teachers. When a man desires to become a musician, he begins by "diligently listening to the performance of a good band. By and by he enters the village orchestra as a clapper-player, and so learns the time and the peculiarities of various tunes. . . . As a natural consequence, there are occasionally variations, and, indeed, every Puloay (or flute) player, has his own particular mannerisms; but these are never so great as to materially alter the character of the air."[2] Still greater variations are common in vocal music. "Each 'prince' or 'princess' has individual peculiarities in the way of trills and staccatos introduced into the legitimate air."[3] When a young man desires to become a vocalist, he attaches himself to some singer of acknowledged reputation, follows him about, and endeavors to master his style, or at least his repertory. The profession of court-singer, while honorable, is not without perils, as it is considered treasonable to sing a new song before the king. We are told that the great singer Moung Thah Byaw was several times condemned to death for carelessly transgressing this law. On each occasion, however, he so charmed his executioners by the sweetness of his songs,

[1] See the tuning of the Burmese harp (Fig. 1), taken from Engel: Musical Instruments in the South Kensington Museum, p. 175.

[2] Yoe, ii. p. 9.

[3] Ibid., p. 13.

that they secretly spared his life, and executed a less gifted but more hapless mortal in his place. For some time after his supposed execution, he preserved a judicious retirement; but at the next palace fête, when the king was bitterly regretting his hasty decision, who should appear, to the unspeakable delight of the company, but the supposed dead man.

BURMESE INSTRUMENTS.

The instrument *par excellence* of Burmah is the harp (Fig. 1). This is called *Soung* (Fétis: Soum), and is found principally in the kingdom of Ava (Northern Burmah). In shape it "somewhat resembles a canoe with a deck."[1] The body is made of light wood, hollowed, and usually covered with tough buffalo-hide. Its length varies from two to five feet. It has a neck, or handle, of hard wood, gracefully curved, and tapering at the end. The strings are of silk, usually thirteen in number, neatly twisted, and fastened to the handle by tasselled cords.[2] It is tuned by pushing the strings up and down the handle, thus increasing or diminishing the tension.[3] The Soung is principally used to accompany the voice, though occasionally, also, as a solo instrument. Its tone is very sweet, even to European ears. In playing, it is "held across the lap, the curved neck being to the left; the performer passes his hand round it, and over the strings. . . . [He] occasionally produces a semi-tone, by applying a finger of the left hand to a string near its end, which has the effect of shortening it. He, however, generally twangs the strings with both hands."[4] The use of the Soung is said to be confined to young men.[5]

[1] Engel, p. 174.

[2] These tassels are used for tightening the cords in such a way as to explain — what has long puzzled antiquarians — the use of similar tassels found in Egyptian and Assyrian sculptures.

[3] For tuning, see Fig. 1.

[4] Engel, p. 175.

[5] Yoe, ii. p. 11.

A second kind of harp is found principally in the southern part of Burmah. This is rectangular on three sides, the top being inclined at a moderate angle. It is about three feet high by a foot and a half long, and is furnished with twenty-five or twenty-six wire strings.[1]

There are several instruments of the violin class in Burmah. Of these the most important is the *Thro* or *Tarau* (Turr). In appearance it is not unlike our own violin,[2] though the finger-board is shorter in proportion to the body of the instrument. The top of the handle is usually elaborately carved. The Thro has three strings, and is played with a large bow not unlike that of our bass viol. Its tone is nasal and unpleasant to our ears. It is often used to accompany the voice, in which case it always plays in unison, filling up the pauses, however, with more or less extended interludes.[3] The Sarinda (Sarôh) of Hindustan is also found in Burmah; though, instead of three strings, the Burmese instrument has ten, — four of gut, which are played by the bow, and six sympathetic wire strings. Fétis also mentions[4] a small three-stringed fiddle, in which the finger-board is very short and defective.

The Ta'Khay of Siam re-appears in Burmah under the name of *Megyoung*. It is usually about four feet long, and shaped like an alligator. A specimen described by Engel[5] was painted red and gilt, and furnished with a pair of glass eyes. The three silken strings pass over two bridges, one being placed near the head, and the other near the tail. The frets are ten in number, set at regular intervals on the back of the alligator. The tuning pegs are situated in the tail. The Megyoung, like the Ta'Khay of Siam, is used in orchestral performances, and its players are said often to exhibit surprising dexterity.

A sort of rude banjo, made of cocoanut-shell, with a handle

[1] For a drawing, see Fétis, ii. p. 335.
[2] See Fétis, ii. p. 337.
[3] Engel, p. 314.
[4] ii. p. 337.
[5] p. 174.

of bamboo, and two wire strings (Fig. 6), is used by the snake-charmers, who manage to extract from it quite elaborate tunes.

The principal wind instruments of Burmah are flutes and oboes. The flute (Fig. 3) is called *Puloay*. It is a simple bamboo tube with seven finger-holes. The best Puloay player, we are told,[1] always leads the orchestra. The oboe (Fig. 4) is also an important instrument in concerted music. It usually consists of a wooden tube with seven finger-holes, fitted with a reed mouthpiece, and a bell-shaped base of brass. Its tone is shrill and piercing. Engel[2] also mentions several "wind instruments of zinc and copper, chiefly in twisted serpent form."[3]

The Burmese instruments of percussion are many and various. The Ranat of Siam is popular in Burmah, where it is known as *Pattala*, or *Patolah*.[4] Several sizes are found. One described by Engel[5] was four and a half feet long, and had twenty-three bamboo keys. The instrument is "played with one or two little sticks about eighteen inches in length, and terminating in a rather thick ball made of cloth." It is said that an old Pattala, "though its materials are of no value, . . . is prized by the owner like a good old Cremona, and he can rarely be induced to part with it."[6]

Gongs and cymbals of various kinds are found in Burmah. The former are combined into an instrument called *Kyee-wain*, corresponding to the Klong-yai, or gong-organ, of Siam. The Kyee-wain usually contains fifteen gongs, or rather metal plates,

[1] Yoe, ii. p. 11. [2] p. 295.

[3] In this connection, I quote the following interesting statement: —

"As regards the brass wind instruments of the Hindus and Burmese, twisted like serpents and other reptiles, it is said that in the beginning of the present century, some London instrument-makers took to manufacturing such grotesque-looking trumpets for exportation to the East. In order to meet the taste of the intended purchasers, they made these articles exactly after Asiatic patterns. It is, therefore, not impossible that among the brass wind instruments brought from Asia to England, and exhibited as Eastern curiosities, there may be occasionally a specimen whose real birthplace is in the neighborhood of its present abode." — ENGEL, *Appendix*, p. 379.

[4] The name Patola is incorrectly applied by Fétis to an instrument which seems to resemble the Megyoung.

[5] p. 176. [6] Capt. Henry Yule, quoted by Engel, p. 176.

hung in a circular frame of wood. It is played with two little sticks, the performer being seated in the middle of the frame. It is considered an essential part of a Burmese orchestra; and every respectable theatre possesses two, one of which is played on each side of the stage. The cymbals are of two principal sizes, called respectively *Ya-gwin* ("big cymbals") and *Than-hwin* ("small cymbals") (Fig. 2). A curious instrument of metal is the *Kyee-zee* (Fig. 7), consisting of a plate of sonorous brass of triangular shape. This is used by the righteous Buddhists to attract attention to their offerings, and, in general, by heads of families on their way to the pagoda. It "is suspended by a string to a stick carried over the shoulder; and as the sounds vibrate, rise and fall, quicken and die away, with the winding or unwinding of the cord, those who intend to keep the duty day well make ready for a start for the pagoda."[1] The Burmese have also a small bell called *Khew*, which, like the Feng-Ling of China, is suspended from the roofs of the Buddhist temples. A thin plate of metal in the shape of a leaf is attached to the clapper, and the wind setting the former in motion causes the bell to ring.

We find in Burmah a kind of gigantic bamboo castanet, called *Wahle'Khoht*, which is sometimes no less than five feet long. "These castanets are always in the hands of the most recently joined, and therefore most zealous, members of the band, and are clapped together with an energy which usually makes them unduly prominent."[2] They play an important part in theatrical orchestras.

There are several kinds of drums in Burmah, but they differ little from those which have already been described under the head of India. One of the most common is shown in Fig. 5. It is made of hollowed wood, covered at the upper end with skin, and is one of a series of nine of different sizes. A number of individual drums

[1] Yoe, i. p. 259.

[2] Ibid., ii. p. 11.

are combined by the Burmese to form an instrument called *Seing-weing*, corresponding to the Kyee-wain, or gong-organ, to which reference has been made. The Seing-weing is described as "an elaborately carved circular wooden frame, painted in parts, standing between two and three feet high, and five feet or more in diameter. Round the inside of this are hung drums of graduated sizes, which are struck with the hands of the performer, who sits in the middle. The alternate dry and saturated state of the atmosphere renders constant tuning necessary; and this is effected by tightening the drum-heads, and also by smearing on with the fingers a paste made of burnt rice-husk. The music produced is rather thin in itself, but by no means unpleasing."[1] This ponderous instrument, together with the Kyee-wain, is usually carried about in a cart; "the owner keeping perpetual guard over them, sitting in the centre, cheroot in mouth, for they cost a very considerable sum of money."[1] In processions, however, if we are to believe Rowbotham,[2] the drum-organ is sometimes moved in a much clumsier way. "The hoop, with its drums attached to it, is carried by two men, one at the front and the other at the back, like chair-men carrying a sedan chair, but without the poles; and the player shuffles along in the inside of the hoop as best he can, playing as he goes." "This," continues Rowbotham, "must be very difficult to do; for he has to turn round and round to strike his drums, and still keep moving along inside his hoop at the rate of the procession."

So much for the instruments of Burmah. As to their combination for orchestral purposes, what has been said in reference to Siam applies also here. The ordinary Burmese orchestra includes both the drum and the gong organ, together with individual drums, gongs, cymbals, and castanets; the Pattala, or harmonicon; and several flutes and oboes. In a full orchestra, stringed instruments may also be used; but in any case we remark

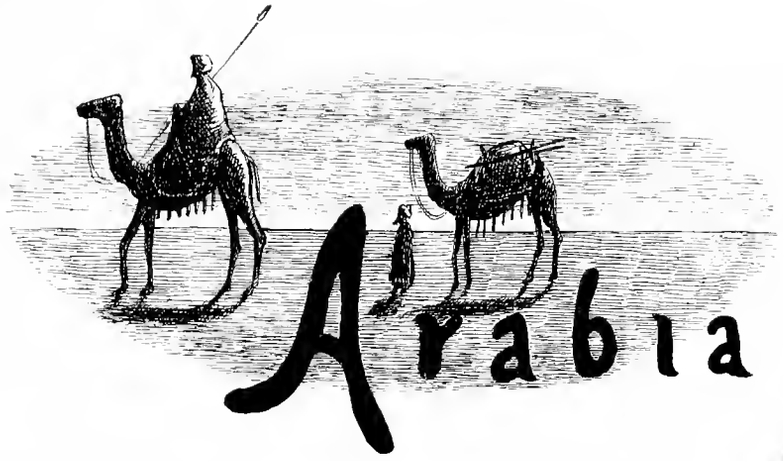
[1] Yoe, ii. p. 10.

[2] i. p. 315.

the great preponderance of instruments of percussion. Indeed, Rowbotham quotes Clement Williams as authority for the statement that many of the small Burmese bands are composed altogether of instruments of percussion, without the assistance of a single wind or stringed instrument.[1]

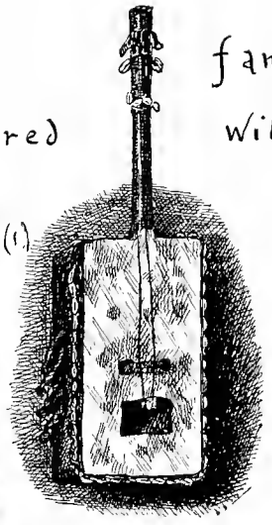
[1] Through Burmah to Siam, quoted by Rowbotham, i. p. 315.

ARABIA, SYRIA, AND NORTH AFRICA.

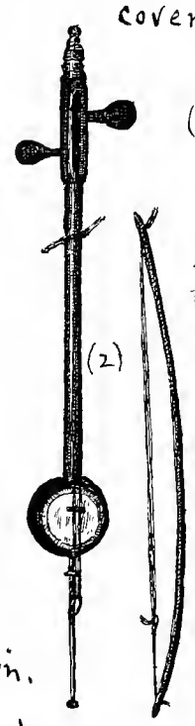


Arabia

1. Stringed Instrument of the Guitar family covered with red plush, and decorated with a border of shells. Has two strings of gut, fastened to the handle without frets. The head cov- ered with skin. L. 26 in. W. 7 in.


(1)

2. Kemangeh - violin Has two thick strings of black horsehair. Played with a horsehair bow L. 3 ft. 3 in. D. 3 in.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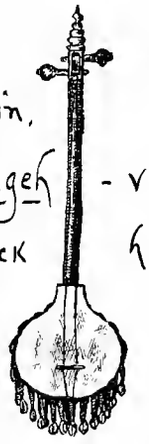
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L. of bow 2 ft. 6 in.

3. Gunibry, The body of gourd covered with sheepskin. Has two catgut strings. Played with a small plectrum L. 21 in. D. 6 in

(5)

4. Small Hand-Drum - wood, covered with skin. D. 5 in.

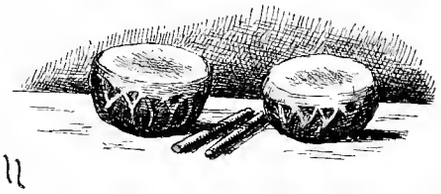
5. Derbouka (Darabouka). Earthenware painted. L. 15 in. D. 7 in.

Syria

1. Oud Lute. Handsome specimen. The face of white wood, the handle inlaid with ivory. Has 12 strings tuned in pairs, 4 of wire, and 8 of gut. Played with a small plectrum. L. 29½ in. W. 14 in.

2. Bizug. a Tamboura. Has six wire strings. L. 2 ft. 11 in. W. 6 in.

3. Faggeishâh Castanets. D 2 in.

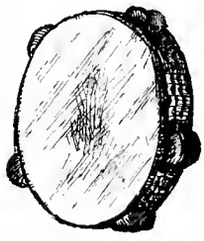


4. Naggarah (Nakkarah) - Small double drum Brass with head of skin. Played with two wooden drumsticks D. 6 in.

5. Derbouka (Dirbukkeh)

Hand-Drum The body made of a reddish clay Held on the lap with the head projecting forward, and played with the flat of the fingers. L. 11 in. D. 7 in.

6. Tambourine. D 9 in.



7. Mijwiz, a double pipe. Played by taking the lips while fingering the holes. Has six holes in each tube. L. 11½ in.

Mouthpiece enlarged

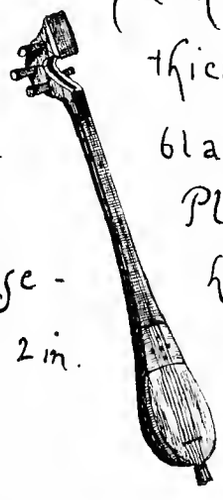
8. Urgun (Irghūn) Double pipe Played like the Mijwiz The tone altered by the addition of the separate pieces at the lower end. Six finger-holes Total length 3 ft. 2 in.

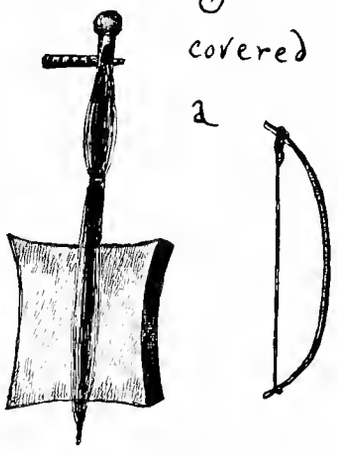
9. Minjairah (9.) A pipe. L. 14½ in.

10. Nay (10.) A flute L. 2 ft. 6 in.

Palestine

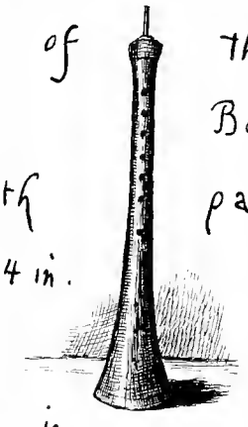
1. Rebâb. Violin. The body consists of a wooden frame, entirely covered with parchment. Has a single thick string of coarse black horse-hair. Played with a horse-hair bow.



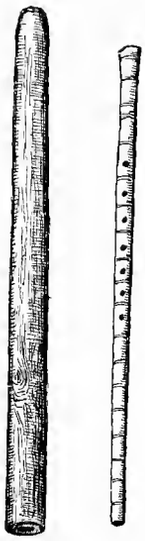


L. 2 ft. 2 in. W. 8 in. L. of bow 1 ft. 11 in

2. Stringed Instrument of the Tamboura or Guitar family. Body of light wood. Head covered with parchment Five strings. L. 2 ft. 3 in. W. 4 in.

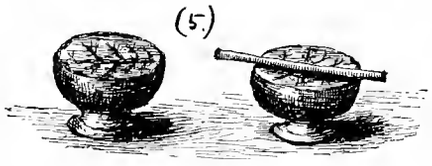


3. Trumpet Wood, with mouth-piece of brass. Seven finger holes in front and one behind. Seven small holes near base L. 2 ft.



4. Flute and Case

The former of a hard light colored wood. Beside the seven fingerholes represented, has an eighth hole in the rear, lower down. Also two others near the top, one on either side. The case consists of a thick piece of wood, hollowed. L. of flute 27 in. D. $\frac{3}{4}$ in. L. of case 2 ft. 7 in. D. $1\frac{1}{2}$ in.



(5)

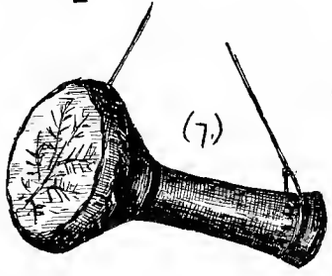
5. Naggarah

The body with parchment in red. H. 3 in.

(6)

Small double drum of china, covered with parchment, rudely painted D. $5\frac{1}{2}$ in.

6. Kettledrum. The body of pottery with head of parchment, painted with rude figures in red. Hung about the neck by the cord, and beaten with two wooden sticks. H. $5\frac{1}{2}$ in. D. 1 ft.



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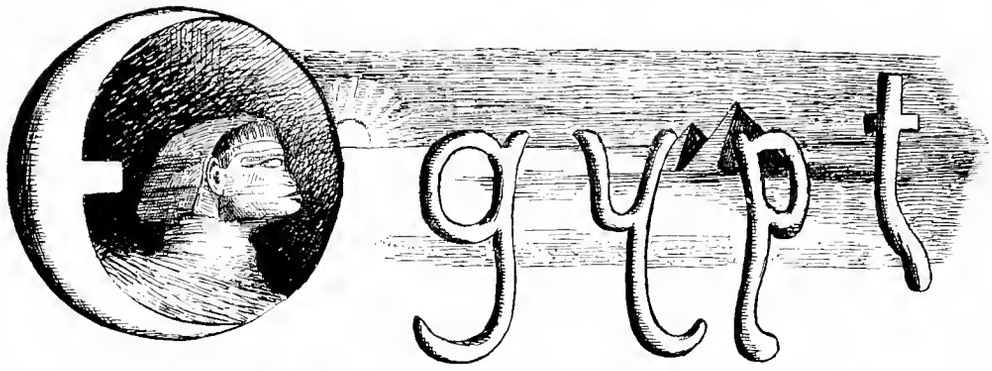
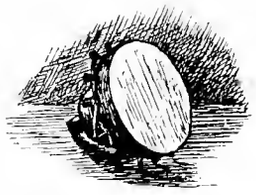
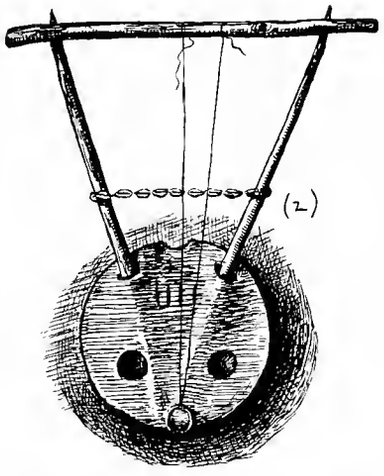
7. Derbouka (Dirbukkeh). Pottery Hand-Drum. Head of parchment, painted red. L. 1 ft. 2 in. D. 10 in.

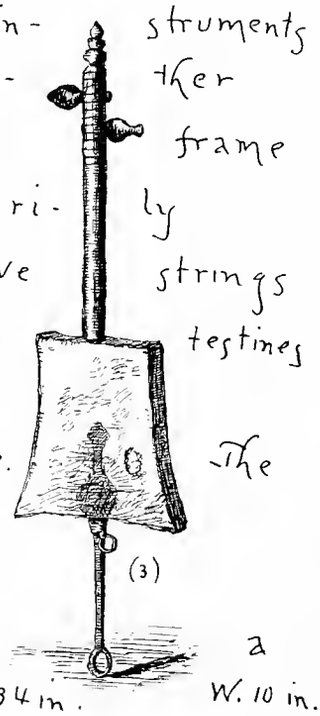


1. Dervish Drum. Brass covered with skin. Used by the Dervishes, and beaten with a leather strap. D. $5\frac{3}{4}$ in. H. 4 in.

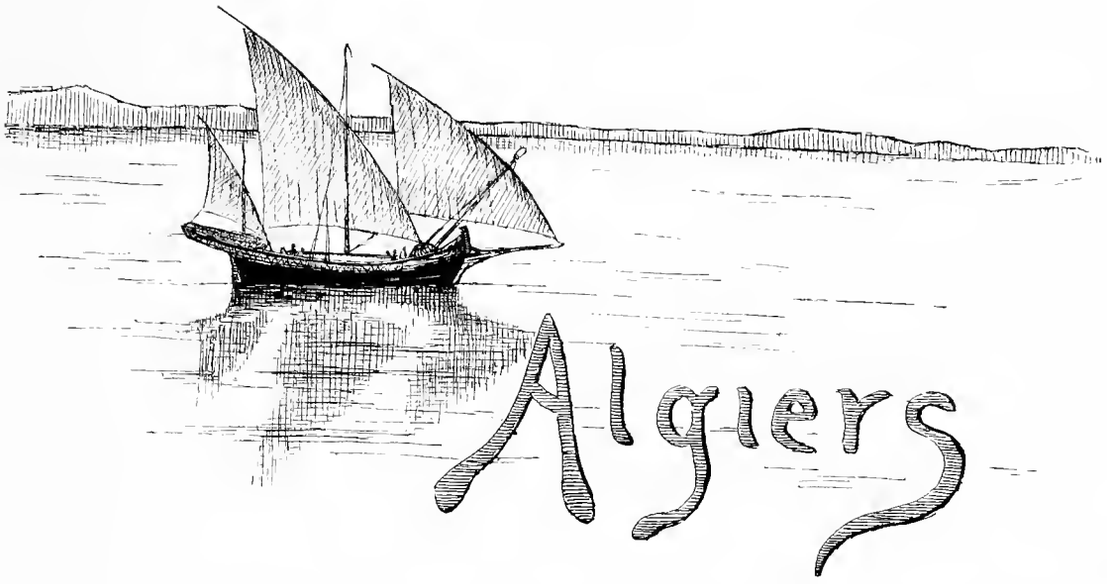


2. Kissar. One of the most ancient stringed instruments. The body of leather stretched over a frame of wood. Ordinarily strung with five strings made of the intestines of the camel, and tuned according to the pentatonic scale. The present specimen has but two strings. L. 2 ft. D. $10\frac{1}{2}$ in. Nubia.



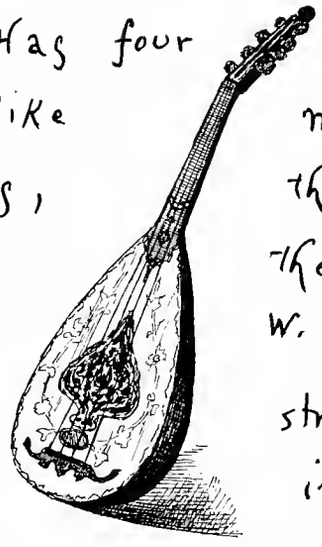


3. Rebâb. Rude 'cello, consisting of a frame of wood, covered with skin. L. 34 in. W. 10 in.

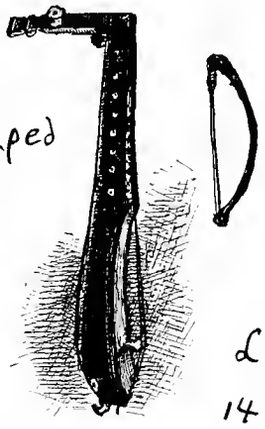


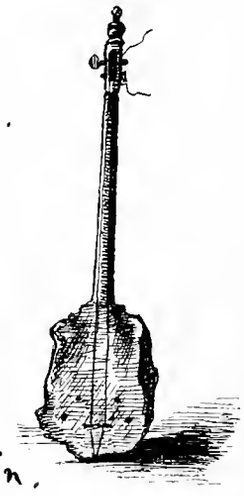
Algiers

1. Kuitra, a kind of guitar. Has four pairs of catgut strings. Like most of the Algerian instruments, this was brought to Africa by the Arab invaders. L. 2 ft. 9 in. W. 10 in.



2. Rebâb, or two stringed violin. Shaped to imitate a fish. Strings of thick gut. Body painted black and green. L. 1 ft. 10 in. W. 4 in. L. of bow 14 in.

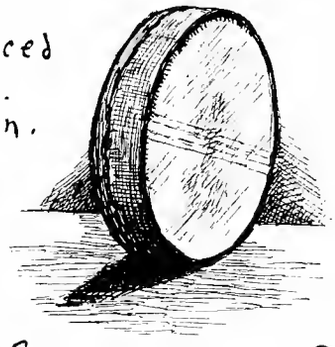




3. Gunibry (Kuniberi) – or tortoise shell guitar. The body made of the shell of a tortoise. Has two strings of gut. Played with a plectrum. L. 23 in. W. 5 in.

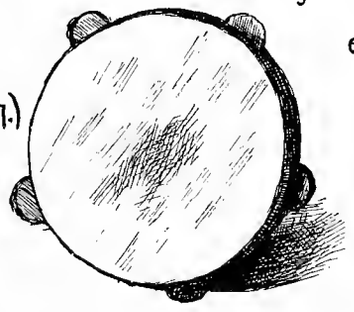
4. Raïta. Oboe. Has eight finger holes and five small holes near the base By turning the headpiece, the top hole is closed together with the eighth hole in the rear, and the pitch is altered. The five holes near the base then come in to use, as in the Turkish Zourna. L. 1 ft. 2 in.

5. Gasbâ Fife, a reed pierced by six finger-holes. L. 13 in.



(6)

6 Bendir, Drum. A wooden frame covered with skin. Five gut strings stretched across the inside to increase the resonance. The back open. D. 18 in.



(7)

7. Târ, Tambourine. The frame painted with bands of red and green. The clappers of brass, 3 in. in diameter. D. 1 ft.

X.

MUSIC OF THE ARABS.

THE influence of the Arabs upon the world of European life and thought has been, perhaps, even greater than that which they have exerted upon the political history of Europe. The Saracens, it is true, never succeeded in maintaining a permanent footing in Spain; but their influence still lives, not only in the gorgeous tracery of the Alhambra, but in the arts and sciences, which in the tenth and eleventh centuries passed from that country to the rest of Europe. The geographical changes produced by the Crusades were, to be sure, not great; but the world of new ideas, brought back from the East by the returning crusaders, was a factor of the very highest importance in the future development of the European nations. Not only in the fields of science, art, and medicine, is Europe indebted to the Arab for stimulus and instruction: in the sphere of music, also, the latter exercised no slight influence upon the former. The lute, the guitar, and the rebec, not to speak of other instruments which will be noticed later, were undoubtedly derived by the Europeans direct from the Oud, the Kuitra, and the Rebâb of the Arabs.[1] In view of these facts, the subject of the present chapter should be of exceptional interest to the musical student.

The history of Arabic music may be divided into two great sections,—the first extending from the earliest times to the conquest of Persia, in the seventh century; and the second, from that time to our own.

[1] Engel, p. 63.

"The musical endowments of the Arabians," says Naumann,[1] "were undoubtedly of a very high order, and, indeed, such as were only to be expected from a people so peculiarly developed as were these children of the desert." Their enjoyment of nature was remarkably keen, — a never-failing sign of a music-loving people. Accordingly we find in their poetry a preference for rhyme as distinguished from metre. It is lyric rather than epic. "Even when the epic or dramatic element is paramount, the lyrical is never entirely eliminated; and in such exceptional instances is shown its innate musical tendency."[1] From the very earliest times, the Arabs have been a nation of poets;[2] but their music seems to have been slow in developing. One of their own authors says, that, before their acquaintance with Islamism, the wandering Arabs had poetry, but no music.[3] In those early days their songs were simple and rude. "All their music and song consisted in the cries with which they drove their camels, so that their so-called singers were known also as *Hadi* (drivers)."[4] But whatever may have been true of the wandering children of the desert, whose life was isolated from all connection with the outside world, and who retained their primitive customs unchanged for centuries, far different was the case with the rich cities of Arabia Felix. In the life of its prosperous and cultivated traders, music played an important part. Of the exact character of this music, we are ignorant; but it probably differed little from that of the neighboring cities of Egypt.[5] The ancients undoubtedly referred to the inhabitants of this part of Arabia, when they attributed to the Arabs the invention of the Greek monochord. Although this derivation was probably mistaken,

[1] i. p. 87. [2] Fétis, ii. p. 6. [3] Ambros, i. p. 427.

[4] Ibid. Yet we hear from Zenobius that the Arab shepherds, while watching their flocks at night, were accustomed to pass the time by playing upon a long flute. Moreover, we know that some of the early Arab chiefs had female singers, whom they esteemed of the highest value. The Arab proverb, "singing like the two locusts of Moawijah," recalls two of the most celebrated singers of this class, whom their master was accustomed to speak of as his locusts.

[5] Ambros, i. p. 428.

and the monochord should be traced to Assyria,[1] the suggestion is interesting as bearing witness to an advanced stage of musical development among the Arabs, even at that early date. Certain it is, that in Menander's time an Arabian flute was not only known, but also popular, in Greece.

Perhaps nothing is more remarkable, in connection with the music of Arabia, than the fact that it seems to have developed with very little reference to, or aid from, religion. To this cause Naumann attributes the fact that with the Arabs music never rose into a real art, as with their neighbors and kinsmen the Israelites.[2] Mohammed himself was opposed to music, probably looking upon it as enervating and beneath the dignity of a true man, — an idea which still survives among the Egyptians of the present day.[3] Although the Koran nowhere contains any definite reference to music, Arabic tradition tells us that it was expressly condemned by the Prophet. "Singing and hearing songs," he said, "cause hypocrisy to grow in the heart, like as water promoteth the growth of corn."[4] Musical instruments he declared to be among the most prominent means employed by the Devil to seduce man, — an idea which is the foundation of many later Arabic legends.[5] Though himself a man of marked poetic spirit, in several places in the Koran he repels the charge of being a poet. "We have not taught him [Mohammed] poetry," he exclaims, "nor was it proper for him."[6] And again we read: "And the poets do those follow who go astray."[7]

[1] Ambros, i. p. 426. [2] i. p. 86. [3] Lane: Modern Egyptians, ii. p. 57.

[4] Lane's edition of the Arabian Nights, i. p. 200; Note on Music. [5] Ibid., p. 201; cf. story of Ibraheem.

[6] chap. xxxvi. 69; Palmer's tr., ii. p. 167.

[7] chap. xxvi. 224, ed. cit. ii. p. 99; cf. also chap. xxi. 5, ii. p. 46.

The Koran itself is written in rhythmical language, and many of its verses end with a rhyme. Mohammed's denial of poetic ability must, therefore, be explained on the ground of his desire to prevent himself from being identified with the wandering bards of the day. "Amongst a people who believed firmly in witchcraft and soothsaying, and who, though passionately fond of poetry, believed that every poet had his familiar spirit who inspired his utterances, it was no wonder that the prophet should be taken for a 'soothsayer,' for 'one possessed with an evil spirit,' or for 'an infatuated poet.'" — PALMER, *Intro.*, i. p. 56.

Some of the caliphs who succeeded were, however, much less rigid in their ideas. Many of the Ommiads and Abbassides were not only fond of music, but were themselves the authors of melodies. In spite of the position of the Prophet, later teachers found a way to reconcile the practice of music with the precept of their religion; and to-day, not only is music used at religious ceremonies in Mohammedan countries,[1] especially by the dervishes, but the Koran itself is chanted in the schools.[2] So impossible does it seem for any people utterly to divorce music from the service of religion. It is a striking fact, that, strongly as Mohammed set his face against music, it was only after his time, when the Arabs, under the mighty impulse which he had imparted, began to come into contact with the surrounding civilizations, that music rose to any real importance among them. Though, in the early days, here and there a chief may have delighted himself with the songs of a female slave; though, even in the time of Mohammed himself, we are told that the Koraish marched out to meet the followers of the Prophet at the battle of Ohod to the accompaniment of the songs and tambourines of their women, — it was only in later days that the idea gained ground, that music was worth study as an art, that a man might honorably devote himself to it; it was only under this new impulse that the two sisters, Music and Poetry, who in early Arabic history had been separated, were finally united; and the poet might become also the composer, — not only writing, but also setting to music and singing his own productions. This remarkable change is only part of the marvellous transformation which took place in the Arab people when they entered upon that career of conquest which has not ceased to be the wonder of the world. It is, therefore, only fitting that the second great epoch in the history of Arabic music should begin with the conquest of Persia.

[1] For a full account of the religious music of the Arabs, see Fétis, ii. p. 90 *seq.*

[2] Lane: Modern Egyptians, ii. p. 57.

Even before the conquest, we are told, the Arabs had some acquaintance with the music of Persia. In the last quarter of the seventh century, the lute is said to have been brought to Mecca by an Arab musician named Nadr Ben Kelde, who had studied music at the Persian court.[1] Such cases, however, were only isolated. But when the caliphs finally established themselves in the court of Chosroes, they succeeded not only to the temporal power of the Persian princes, but also to the arts and sciences of the great people whom they had conquered. "With surprising quickness," says Ambros, "the sons of the desert caught up the homogeneous Oriental culture of the conquered land,—yes, in the course of the four centuries of their rule, surpassed their teachers."[2] And this was pre-eminently true of their music. "The theory of music which they received from the Persians, they developed richly; and so thoroughly, that they themselves on their side could become teachers of the Persians. From that time on, Persian and Arabian music went on, like two streams flowing side by side and united; and the history of art cannot, therefore, well consider them separately."[2]

Here, however, we are confronted with an interesting problem. What was the exact state of music in Persia at the time of the Arab conquest? How much of the present Arabic system did the conquerors bring with them, and how much did they receive from their Persian masters? What were the differences in theory and in practice between the two systems, or were they practically identical? These questions are easier to ask than to answer. Fétis holds that the two systems were essentially different, not only in minor points, but in the structure and division of the octave; and that the development of the Arabic theory, while stimulated,

[1] Engel, p. 60. Rowbotham, however, attributes its introduction to Ebn Musaddschidsch. See iii. p. 525 *seq.*, where a number of interesting stories are given of the early Arab minstrels.

[2] i. p. 430.

was little modified by the Persian system.[1] He maintains, that, for centuries after the conquest, the two musics still existed, side by side, but yet essentially distinct.[2] The greater number of musical historians, however, including the latest and most reliable, hold essentially the position of Ambros,[3] that, whatever may have been true of the early music of Persia, after the seventh century it became practically identical with that of the Arabs. This position I have followed in the present chapter, leaving to be discussed at a later time the few facts which have come down to us from the early history of Persian music.

In the eighth and ninth centuries, Bagdad was the great musical centre of the day. Persian singers flocked in crowds to the court of the caliphs. Poets and musicians alike received munificent rewards. "On all sides," says Fétis, "were heard the voices of male and female singers, accompanied by the tamboura and by the lute. They were the delight of the palaces of Bagdad, Damascus, and Aleppo in Asia; of Cordova, of Toledo, and of Granada in Spain."[4] The celebrated names which have come down to us from this period must be numbered by hundreds.[5] Many interesting stories have been preserved of the skill of these early musicians. Haroun al Raschid, we are told, was moved by the performance of the singer Ishak el Mosilee to forgive a favorite concubine, who had in some way offended him.[6] The father of this same Ishak, Ibraheem by name, received from the caliph a monthly pension of ten thousand dirhems, in addition to a present of a hundred and fifty thousand dirhems on the occasion of his entering the latter's service.[7] This Ibraheem had a pupil, Mukharik, of whom even more wonderful tales are related. On one occasion, having been captivated by the beauty of a female slave, he is said to have made his way into

[1] ii. pp. 33, 39. [2] ii. p. 369. [3] i. p. 430. [4] ii. p. 11.
[5] See Fétis, ii. p. 13 *seq.*, for an account of some of the most distinguished. [6] Ambros, i. p. 429.
[7] Lane: Arabian Nights, i. p. 202.

the house of her owner, and there to have so charmed the master and his guests by his singing, that they all sprang to their feet and kissed his head. He then sang a second air, and a third; and "their reason almost fled, from ecstasy." The master of the house, learning who he was, gave him as a reward the girl of whom he was enamoured; the other guests adding a bountiful sum of money. When the caliph, who had been angry at the long absence of his favorite singer, heard the story, he laughed, and added to the amount already received by the singer the sum of one hundred thousand dirhems.[1] Equally remarkable stories are told of the skill of the celebrated Alfarabi. The reputation of the latter was so great, that he was summoned from his home in Spain to perform before the caliph at Bagdad. Fearing lest he should be retained at court, and so never see his native land again, he made the journey secretly and in disguise. He succeeded in gaining admittance to the presence of the caliph without being recognized, and received permission to try his skill upon the lute. The story of what followed is thus given by Engel:[2] "Scarcely had he commenced his performance in a certain musical mode, when he set all his audience laughing aloud, notwithstanding the efforts of the courtiers to suppress so unbecoming an exhibition of mirth in the presence of the caliph. In truth, even the caliph himself was compelled to burst out into a fit of laughter. Presently the performer changed to another mode; and the effect was, that immediately all his hearers began to sigh, and soon tears of sadness replaced the previous tears of mirth. Again he played in another mode, which excited his audience to such a rage that they would have fought each other, if he, seeing the danger, had not directly gone over to an appeasing mode. After this wonderful exhibition of his skill, Alfarabi concluded in a mode which had the effect of making his listeners fall into a profound sleep, during

[1] See Lane: Arabian Nights, i. p. 203, where the anecdote is given at length. [2] p. 64.

which he took his departure." These and a host of like stories bear witness to the wonderful effects attributed by the Arabs to these early musicians.[1]

But not only did musical practice reach a wonderful perfection at the Court of the Caliphs: no less marked was the attention given to the theory of music. Not only do we find a number of theoretical works by professed musicians, such as the "Book of Sounds" of Chalil, and the "Theory of Composition" of El Kindi, but men in other departments of life began to interest themselves in musical studies. Especially interesting are the treatises of a number of medical men, such as Achmed ben Mohammed who lived in the middle of the ninth century, and Ibnol Heisem who lived in the eleventh. The latter wrote a treatise on "The Influence of Musical Melodies on the Souls of Animals." The most remarkable man of this class was the celebrated physician Avicenna. He first recognized the power of music as a remedy for cases of mental derangement.[2] The thought of the moral influence of music also was familiar to the Arabs. We read that Hadji Chalfa taught that "the soul which has been ravished by melody longs to behold higher beings, to share in a purer world; so that even spirits which are darkened by the grossness of the body are by it prepared for, and rendered susceptible of, intercourse with the figures of light which stand before the throne of the Almighty."[3]

An attempt was made by Alfarabi, in the tenth century, to establish a connection between the musical theory of the Arabs and that of the Greeks, and to refashion the music of the former after the model of the latter. Happily, or unhappily, this attempt proved unsuccessful; and for some time longer Arabic music

[1] See Rowbotham, iii. p. 517 *seq.*; also 520 *seq.*, for a description of a musical festival at the court of Haroun al Raschid.

[2] Naumann, i. p. 92.

[3] Quoted by Ambros, i. p. 468.

continued to follow natural lines in its development. In the fourteenth and fifteenth centuries, however, it had to sustain a new attack. At this time "certain doctrinaires of New Persia, in conjunction with their Arabian colleagues, succeeded in destroying what little there remained of practical utility in the Mussulman theory. They abandoned the hard-won octave, substituting for it a number of useless keys, and reverted anew to the tetrachord and pentachord. At the same time, free invention was interdicted, and the disciples of the tonal art were ordered to keep strictly within the limits of the theory. Thus all inspiration was checked, and its products discarded unless they bore the brand of scholasticism; and only those phrases were deemed worthy of acceptance which were formed by the interweaving of a number of short and rigidly prescribed tone-formulæ."[1] These theorists especially emphasized musical expression, and assigned to each sentiment its peculiar key, in which alone corresponding melodies could be composed.[2] At a somewhat later period, if we are to believe Ambros,[2] still further confusion was caused by the attempt to introduce into Arabic music our own scale of seven whole, and five half, tones. The difficulties caused by this were not only practical, but theoretical; for the Arabs, like the ancient Hindus, began to represent the relations of the scale in pictorial forms, personifying the various notes under the figure of the elements, the planets, day and night, etc., — a procedure which tended only to obscure and confuse, even if it did not destroy, their former theory.

"Under such circumstances," says Naumann, "one can only regard it as a piece of good fortune that the people began to treat the theory of their teachers with disdain. In defiance of arbitrary rules, they improvised songs, responsive to their inner promptings, accompanying themselves according to their own inclination. Naturally the divergence of the people from any recognized system

[1] Naumann, i. p. 92.

[2] Ambros, i. p. 443.

was as powerless to create a perfect art as the dogmatic professors who affected contempt for the unrestrained outpourings of national sentiment. To this schism between abstract theory and intuitive practice, we owe a number of songs, dances, and marches, possessing a peculiar and even romantic charm characteristic of the Arabs, Bedouins, Saracens, and Moors, and exhibiting their great aptitude for music."[1]

I do not propose to weary my readers with a long account of the theory of Arabic music,[2] but shall confine my attention to a few of the most important points. "With the Arabs," says Ambros, "music developed in a characteristic way; and their theory of music is not behind that of the Greeks in subtle penetration. It is even more difficult, because in them correct views of musical principles run off into all kinds of fantastic, Oriental, transcendental tracery; just as, in the Koran, lofty ideas of religion and morality are overgrown, almost to the point of being unrecognizable, with all sorts of fantastic stories in the spirit of the Thousand and One Nights."[3]

Many attempts have been made, both in ancient and modern times, to trace a connection between the theory of Arabic music and that of the Greeks. Certain it is that there is a marked similarity between the old Arabic scale (D, E, F♯, G, A, B, C, D) and the Phrygian scale of the Greeks. Possibly this similarity may be explained on the theory that the music of the Arabs was founded on the remnants of some old Asiatic system.[4] But the whole question is an obscure one. The Arabs divided the scale in two ways: First, at G, into two parts, — the first of four notes (tetrachord), and the second of five notes (pentachord); and second, also at G (omitting the final D), into two united tetrachords. In

[1] i. p. 92.

[2] For full information on this subject, the reader is referred to the learned discussions of Fétis, Ambros, and Rowbotham.

[3] i. p. 425.

[4] Ibid., p. 431.

this case, the last note, C, became "the root of new tetrachords, and each tone and half-tone the basis of new scales."[1]

The Arabs divided each whole tone into three equal divisions. Seventeen of these made up the octave, a third tone taking the place of the half-tone in our scale. Their musical system embraced forty of these small intervals, the total compass being a little over two octaves. In theory they recognize still smaller intervals.[2] Many attempts have been made to account for the peculiar subdivisions of the Arabic scale.[3] According to Naumann, it "may, perhaps, be attributable to their nasal method of singing, and the habit of gliding from note to note."[4] The intervals of the Arabic scale are disagreeable to the European ear, and many travellers have complained of the discordant character of their music; yet familiarity seems, in this case, to breed the reverse of contempt. The noted Arabic scholar, Lane, who spent many years in Egypt, speaks with unqualified praise of the performances of the female singers of that country.[5] Still more striking is the experience of Salvador Daniel, quoted at length by Fétis. "At first," says this excellent musician, "like every one else, I could perceive nothing but an awful *charivari*, destitute of melody or of measure. Nevertheless, by force of habit, — or, if you like it better, by a sort of education of the ear, — there came a day when I could distinguish something like an air. I tried to note it down, but could not succeed: the tonality and the measure always escaped me. . . .

"Yet, where I heard only noise, the Arabs found an agreeable melody, in which their voices often joined; where I could not find any regular time, the dance forced me to admit that there was one.

[1] Naumann, p. 89.

[2] Ambros, i. p. 433.

[3] Clément, the recent French historian of music, who is inclined to receive with allowance the learned theories of his predecessors, while admitting that in practice the Arab musicians employ minute intervals of sound, is inclined to be sceptical as to the exact and scientific nature of these divisions. — *Histoire de la Musique*, p. 61.

[4] i. p. 89.

[5] Modern Egyptians, ii. p. 60. "I have heard the most celebrated Awalim in Cairo," he says, "and have been more charmed with their songs than . . . with any other music that I have ever enjoyed."

In this difference of sensation there was an interesting problem. I attempted to get to the bottom of it. With that end, I associated with native musicians; I studied with them, in order to account to myself for a sensation which others experienced, and yet which did not touch me in the least.

"I am now passionately fond of the music of the Arabs. It is no longer the pleasure of a conquered difficulty that I seek. I desire my share of the delights which Arabic music furnishes to those who understand it. In fact, in order to judge the music of the Arabs, it is necessary to understand it; just as to appreciate at their true value the beauties of a language, one must be a master of it. Now, the music of the Arabs is a music by itself, resting upon altogether different laws from those which govern our musical system. We must accustom ourselves to their scales, or rather to their keys, and that laying aside all our own ideas of tonality."[1] Other similar instances could be added.[2]

I do not propose to enter upon the intricate combinations of the Arabic theory. "By a simple and combined augmentation of the notes of the tetrachord (called 'Thabaka'), the Arabians obtained the great number of eighty-four scales,[3] twelve of which were selected as the principal keys. We find, therefore, with them, just as with so many other nations of antiquity, practical and impractical scales. When an Arabic theorist satisfied himself of the uselessness of one of his arbitrarily concocted scales, he silenced his doubts in that truly stolid Oriental manner, with 'God knows it.'"[4]

According to Fétis,[5] the Arabic theorists have failed properly to discriminate in their treatises between movement — that is to say, the greater or less rapidity of execution — and measure. Their different *hesedschi* do not vary in regular, but in irregular, proportion.

[1] The passage is quoted in full by Fétis, ii. pp. 26, 27.

[2] See Fétis, ii. p. 27, foot-note.

[3] The whole eighty-four are printed in full by Fétis, pp. 43–48.

[4] Naumann, i. p. 89.

[5] ii. p. 65.

They correspond rather to our terms *largo*, *andante*, *allegretto*, etc., than to what we understand by musical measure. Thus, in a given time, the fast *hesedschi* has seventeen beats; the next slower has ten; the next, eight; and the slowest of all, six. In practice, however, most of the Arabic melodies with which we are acquainted are composed either in four-four, two-four, three-four, or six-eight time.[1] The Arabs delight especially in mixed measure, which they employ in dancing-music, alternating one kind of measure with another; "as two-four with three-four, or four-four with five-four, giving one bar to each in turn."[2]

It is only in comparatively recent times that the Arabs hit upon the device of representing the notes of the scale by the letters of the alphabet.[3] Practically, however, no use is made of this discovery. Tunes are handed down by ear from one musician to another, and tradition is the sole guide as to the method of execution. All music is played in unison, harmony being regarded "not only as a superfluous, but even as a disturbing, element."[4]

Such is a brief account of the chief characteristics of Arabic music, as it was in the days of Haroun al Raschid, and as it still continues among all the peoples over whom this wonderful race has extended its sway. I shall conclude this chapter with a few remarks on the present state of music in Arabic countries.[5]

Singing is extremely popular with all classes. "Mothers soothe their infants with plaintive lullabies; children accompany their games with melodious rhymes; . . . the muezzin chants the call to prayers five times a day from the top of the minaret; and the church-beadle in similar tones exhorts to matins as he passes along

[1] Fétis, ii. p. 64. [2] Van Lennep: Bible Lands, p. 606. [3] Ambros, i. p. 446.

[4] Ambros, i. p. 447. Naumann (i. p. 90) dissents from this opinion, but is not sustained by his English editor, Sir Gore Ouseley.

[5] Under this head I mean to include Arabia proper, Syria, Palestine, and the surrounding regions, and the north coast of Africa, including Egypt and the Barbary States. The music of the Turks will, for convenience, be considered with that of Persia.

the streets at early dawn, the pavement resounding to the strokes of his heavy stick. The venders of all manner of eatables and drinkables, and indeed of every species of manufacture, extol their wares in musical cadences. . . . Among all sects, the rite of baptism or of circumcision, of marriage or burial, is accompanied by music and singing."[1] Travellers often while away their journey with a song. "In short," concludes Van Lennep,[1] "no opportunity is lost by these people to gratify their natural fondness for music." Many of the Arab songs are soft and plaintive in character. Others, however, are cheerful and sprightly, such as those of the "Egyptians of the Nile valley, who go out in the quiet of the evening to meet the returning fishermen with jubilant songs and merry dances."[2] Most Arab melodies are simple, but (save those of wandering Bedouins, which still preserve their early character unchanged) so overlaid with trills and ornaments as to be almost unrecognizable. These ornaments and variations are improvised by each singer for himself, and constitute the chief charm of the performance to the audience.

"The Oriental voice is naturally extremely fine, and is often raised to the falsetto."[3] Good singers are highly esteemed, and receive remuneration, which, if less extravagant than that given to the favorites of the old caliphs, is still very handsome. In Egypt there is a class of female singers, called Awalim (singular, Almeh), whose performances are extremely popular. A good Almeh will often receive two hundred and fifty dollars for singing at the evening entertainment of some wealthy man. So enthusiastic are the auditors on such occasions, that they frequently lavish upon the singer more than they can really afford.[4] When a party of men are present, the singer sits at a window in the harem, concealed from sight by a screen of lattice-work. Some of the Awalim also

[1] Van Lennep, p. 619; cf. also Lane, ii. p. 57.

[2] Naumann, p. 96.

[3] Van Lennep, p. 606.

[4] Lane: Modern Egyptians, ii. p. 60.

perform instrumental music, and those of an inferior class sometimes dance in the harem. They are not, however, to be confounded with the common dancing-girls, — a mistake which has often been made by travellers.[1] The male professional musicians of Egypt are called Alateeyeh. They are both vocal and instrumental performers. They are generally a dissolute set of fellows, and, when hired to amuse the company at a grand entertainment, are "usually supplied with brandy and other spirituous liquors, which they sometimes drink until they can no longer sing nor strike a chord."[2]

We find also in Mohammedan countries a number of wandering bards, or improvisers, who compose extempore verses for the amusement of the crowd gathered in the street or at some café. They usually accompany themselves upon a rude sort of violoncello with one string, called Rebâb esh-shaer, or "poet's viol."[3] Their performances are extremely popular.

The professional dancing-girls, or Ghawazee, of Egypt, accompany their performances with little castanets of brass, in the use of which they are very skilful. They are usually accompanied also by musicians (mostly of the same tribe), whose instruments are "the Kemangeh, or the Rebâb with the Târ, or the Darabukkeh with the Zummarah, or the Zémr. The Târ is usually in the hands of an old woman."[4]

Though respectable Moslems rarely perform instrumental music, they are very fond of listening to it. Orchestral performances are common, both in public and private. The instruments most frequently used for such purposes are the Nay (or flute), the Kemangeh (or violin), the Tamboura, the Oud, the Kanoon, and the Santir. Sometimes also the Darabukkeh is added. For

[1] Lane: Modern Egyptians, ii. p. 60.

[2] Ibid., ii. p. 59.

[3] Engel, p. 211. For a fuller description of these improvisers, see Fétis, ii. p. 104, and Van Lennep, p. 621.

[4] Lane, ii. p. 87.

the music which is performed in the public cafés, the Nay, the Kemangeh, the Tamboura, and the Târ generally suffice. It is worth remarking, that, in the instrumental music of the Arabs, the place of honor is given to the strings. This bears witness to an advanced stage of musical development; such, indeed, as is only to be expected among a people with whom poetry and song are as highly esteemed as they are among the followers of Mohammed.

XI.

MUSICAL INSTRUMENTS OF THE ARABS.

KIESEWETTER, in his learned treatise on the music of the Arabs, gives the names of over two hundred musical instruments which have been in use among them, either in ancient or modern times. Even this number does not exhaust the list, for the Spanish historians mention many which are not included in the above number.[1] No other people of the Orient have shown such a predilection for instrumental music, or have carried it to so high a point of development.[2] We hear of their having thirty-two kinds of lute, twelve kinds of dulcimer, fourteen instruments of the violin family, twenty-eight double pipes, twenty-two oboes, eighteen trumpets, five bagpipes, etc.; not to mention at least thirty instruments which are known to us only by name. Out of so extensive a list, it will be possible to select for consideration here only the most important. We shall take up first the stringed instruments of the Arabs; second, their wind instruments; and third, their instruments of percussion.

I. "The crown of the Arabian instruments," says Ambros,[3] "is the lute." This is called *Oud* (Fig. 1, Syria), or, with the article, *el Oud*, meaning literally "wood." The Arabs attribute its invention to Pythagoras, though this idea seems to be entirely without foundation.[4] Less open to doubt, however, is the statement, found in many of their writers, that they first derived their acquaintance

[1] Engel, p. 63. [2] Ambros, i. p. 466. [3] i. p. 458. [4] Fétis, ii. p. 107.

with the lute from the Persians. The learned theory of Kiesewetter, that the latter took their idea of the instrument from drawings on Egyptian monuments, while attractive, cannot be regarded as proved.[1] For centuries the lute has been popular with Arabian musicians. It was the favorite instrument in the time of the Abbassides. At the time of the conquest, it was introduced into Spain by the invading Saracens, and thence passed into the rest of Europe. Even the name "lute" is an exact reproduction of the Arabic "el Oud." The praises of the lute have been sung by many Arabic poets. It was by the strains of this instrument that Mukharik so charmed his auditors, that he received as a reward the slave girl whom he loved.[2] Upon the lute, we are told, Aboo-Murrah (the Devil) played so exquisitely, on one occasion, in the hearing of the celebrated musician Ibraheem, that it seemed to him that "the lute spoke in his hands with an eloquent Arab tongue."[3]

Originally the lute had but four strings. Alfarabi has preserved to us a careful description of this instrument as it existed in the tenth century. According to his account, there were two methods of tuning the lute, and of regulating the divisions on the finger-board. The oldest method gave the diatonic scale, whereas the other produced twenty-eight smaller intervals, "called, by Farabi, *melodic intervals*." These intervals followed the Persian division into quarter-tones.[4] Another variety of lute, with five strings, was also found in Farabi's time. Later, however, the number of strings was increased. To-day, the ordinary lute has fourteen strings, tuned

[1] Ambros, i. p. 459.

[2] See p. 172.

[3] Lane: Arabian Nights, i. p. 201. "The Arabs," says Naumann (i. p. 111), "attribute to the lute, their chief instrument, miraculous powers of healing. Their philosophers claim to see in it a reflection of nature, and liken the highest of its four strings to fire, the two middle ones to air and water, and the lowest to the earth. They further add, that a musician should not play without pursuing some systematic method of procedure: for instance, starting from the lowest string, the melody should speak comfort to the hearer; this should be succeeded by a song of love, gradually giving place to a seductive dance-rhythm, and concluding with sounds inviting to peaceful slumber."

[4] Fétis, ii. p. 108.

in pairs. This is the case with the Egyptian lute, in which the strings are made of lamb's gut.[1] The Syrian lute has but twelve strings, — four of wire, and eight of gut (see Fig. 1, Syria). The form of the modern Arab lute differs little from that of our own. It is usually from twenty-five to thirty inches long, and some fourteen inches in diameter. A representative specimen, described by Lane in his "Modern Egyptians,"[2] was made of fine deal, with edges and neck of ebony. To prevent the wood from being worn away by the plectrum, a piece of fish-skin was glued across the face beneath the strings. The Oud is held across the performer's lap, like our guitar, and is played with a small plectrum, sometimes of steel, and sometimes of the quill of an eagle.[3] The tuning of the Egyptian instrument is thus given by Lane:[4] Taking the lowest pair of strings as the tonic, the second pair is tuned to the fifth, the third to the seventh, and the others to the second, fourth, sixth, and third.

Next we shall consider the instruments of the mandolin and guitar family. Far the most important under this head are the Tambouras. We have already met the Tamboura in India; and I there called attention to the suggestion of Fétis, that all the Persian and Arabian instruments of this class were originally derived from that country. Whether this be true or not, the name *Tamboura* is certainly Arabic, and the instrument has been for centuries one of the most common in all Mohammedan countries. Its use has passed from the Turks into Europe, and many popular Greek and Roumanian instruments belong to this class. Very many different kinds are found, varying greatly both in size, shape, and number of strings. Numerous specimens are included in the present collection. I refer especially to Figs. 2 under Syria, 1 and 3 under Persia, 3 to 7 under Turkey, and 1 and 2 under Greece. I will not attempt

[1] Lane: Modern Egyptians, ii. p. 68.
[2] ii. p. 67.
[3] Naumann, i. p. 108.
[4] Modern Egyptians, ii. p. 68.

to distinguish all the different varieties, but will only mention two or three of the most important.

Even in Alfarabi's time two different kinds of Tamboura were in common use. That most used in Arabia was the Tamboura of Bagdad, which had but two strings. The Tamboura of Khorassan, or Persian Tamboura, was, however, a more elaborate instrument. Its form and dimensions varied according to the locality. Its strings were tuned in pairs, and the frets on the finger-board were numerous. In some instruments, also, they were movable, as is the case with most of those in use to-day.[1]

Almost all the Tambouras of the present day are alike in having an oval body, and a long, thin handle. The largest and most important is the *Tanbour Kebyr Tourky*, or great Turkish Tamboura (Fig. 7, Turkey). The use of this instrument is common in Egypt and in Turkey, where the Turks have adopted it from the Persians. The body is rounded in shape, the face forming an almost complete circle. The handle is very thin and long, that in the present collection being three feet and a quarter long. The diameter of the head is thirteen inches. It is strung with eight wire strings, and is furnished with a large number of movable frets of gut (generally thirty-five),[2] by the use of which the small intervals of the Arab scale may be produced. Its tuning is given in connection with the illustration.

In the most common form of the Tamboura, the body is pear-shaped. This is the case with the *Tanbour Charqy* (Oriental Tamboura), *Tanbour Boulghary* (Bulgarian Tamboura), *Tanbour Bouzourk* (great Tamboura), and *Tanbour Baghlama* (small Tamboura).[3] The Tanbour Charqy and the Tanbour Boulghary have four strings each, the Tanbour Bouzourk has either six or ten, and the Tanbour Baghlama either four or six.[4]

[1] See the elaborate account given by Fétis, ii. p. 112 *seq.*

[2] The present specimen has, however, only twenty-three frets.

[3] Engel, p. 209.

[4] For a full description of each of these varieties, the reader is referred to Fétis, ii. pp. 119–127.

The Bizug of Syria (Fig. 2) is a Tamboura with seventeen frets and six strings.

The Arabs of Algiers have a sort of guitar, called *Kuitra*, which is often very elaborate and graceful. The specimen in the present collection (Fig. 1) is beautifully inlaid with mother-of-pearl. It has four pairs of catgut strings, and is played with a small plectrum of tortoise-shell. A smaller variety is also found, which has only three pairs of strings.[1] The body is sometimes made of the shell of a tortoise.

The Arabs of the North of Africa, as well as those of Arabia proper, have also a small stringed instrument, called *Gunibry* (Kuniberi), which somewhat resembles a banjo. Two specimens of this are included in the present collection (Fig. 3, Algiers; Fig. 3, Arabia). In the Algerian specimen, the body is made of the shell of a tortoise. The handle is of rough wood, without frets. Two strings of gut pass over a low bridge, and are tuned at the top by two rude pegs of wood. In the Arabian Gunibry, the body is made of half a gourd covered with sheepskin. It is decorated with a number of little strips of leather, to which are attached small shells. The strings are two in number, also of catgut, and the handle resembles that of the Algerian instrument. The Gunibry is played with a small plectrum, usually consisting of half a split quill.

A curious instrument of the guitar family is shown in Fig. 1, under Arabia. The body of this consists of a rectangular frame of wood, covered with red plush, and decorated with a border of shells. Its head is covered with skin, in the surface of which a square hole has been cut just below the bridge. The strings are of gut, two in number, and are fastened at the lower end to a piece of wood, which projects a little beyond the edge of the opening referred to. The handle is round, without frets, as in the case of the Gunibry; and the strings are fastened directly to the handle

[1] Engel, p. 307.

by a leather band, without the use of tuning pegs of any kind. A rough bridge of wood raises the strings a little above the surface of the sounding-board.

Another interesting instrument is the *Kissar* of Egypt (Fig. 2) and Nubia. This is not strictly an Arabian instrument, but I speak of it here for convenience. The modern Egyptians call it "*Qytârah barbaryeh*, which indicates that it is considered the national instrument of the Barabras, or Berbers, who are believed to be descendants of the original inhabitants of Egypt."[1] The body is circular in shape, and made of leather stretched over a frame of wood. From this project, at an angle, two pieces of wood, which are united by a third at the top, thus making the appearance of the instrument not unlike that of the modern lyre. The strings are of gut, five in number, and are fastened at intervals to the cross-bar at the top. Curiously enough, they are tuned to the pentatonic scale, — a fact which attests the great antiquity of the instrument. In the specimen in the present collection, three of the strings are wanting. "Such," says Fétis, "is the ancient lyre; such is the instrument with which were produced the marvellous effects of the music of the Greeks."[2]

One of the most important of the Arabic stringed instruments is the *Kanoon* (Kanun, Qânon), or dulcimer (Fig. 1, Turkey). This is interesting, not only because of its beauty of form and power of musical execution, and of the important part which it plays in the music of the Arabs, but also because it is the model from which were derived all the European instruments of the same family.[3]

The name *Kanoon* "is from the Greek *κανών*, or from the same origin, and has the same signification; that is, 'rule,' 'law,' 'custom.'"[4] The ordinary form of the instrument is as follows: The body is in the shape of a trapezoid, in which the diagonal

[1] Engel: Music of the Most Ancient Nations, p. 157.
[2] ii. p. 133.
[3] Ambros, i. p. 460.
[4] Lane, ii. p. 64.

forms a very acute angle with the longest side. The greatest length varies from about three feet to three feet and a half, and the breadth from fourteen to sixteen inches. The depth is a little over two inches. It may be made of various kinds of wood. Walnut is commonly used in Egypt; but in a fine specimen, deal, beech, and poplar wood are also employed.[1] The face of the specimen in the present collection, which is Turkish, is very beautifully carved. A piece of fish-skin, nine inches wide, is ordinarily glued over the lower part of the face, upon which the bridge rests.[1] Two (sometimes three) openings in the sounding-board increase the resonance. The strings are usually of lamb's-gut, and are tuned by pegs either of wood or metal. They may be either seventy-two or seventy-five in number.[2] In either case, they are tuned in sets of three each,[3] giving, therefore, only twenty-four or twenty-five distinct notes, as the case may be. It is played with two plectra, one of which is attached to the forefinger of each hand. Each plectrum consists of a small piece of buffalo-horn, which is held in place by a ring or thimble of brass or silver, which passes over the finger.[4] The instrument is held across the knees of the performer. It is used both for solo and concerted music, and is extremely popular in the harems of Turkey to-day. Lane speaks in the highest terms of the effects produced by this instrument.

A less elaborate form of dulcimer is the *Santir*. This differs little from the instruments of the same family which are found all over Asia, even in China and Corea. The strings of the Santir are of wire, and are tuned by means of metal keys, as in the modern zither. In the specimen described by Fétis, the strings are thirty-six in number, and are tuned in sets of two each, so as to produce eighteen distinct notes.[5] In that in the present collection, however,

[1] Lane, ii. p. 64.

[2] A smaller variety is found in Algiers, which has sixty-three strings. Fétis, ii. p. 130.

[3] For tuning, see Engel: Musical Instruments in the South Kensington Museum, p. 208.

[4] Lane, ii. p. 66.

[5] ii. p. 132.

which is Turkish, the number of strings is doubled. In this instrument, four strings instead of two are tuned in unison. The strings pass over a series of movable bridges, not unlike chessmen, which are arranged in two rows, so as to divide the instrument into three parts, as in some European dulcimers (see Fig. 4, Europe). They are struck with little wooden hammers. The Santir is not found in Egypt; but it is played at Bagdad and at Damascus,[1] and is especially popular in Turkey.

It remains to consider the stringed instruments of the violin family. These may all be classified under two heads: First, the *Kemangehs;* and second, the *Rebâbs.*

The name *Kemangeh* is of Persian origin, and signifies a "bow-instrument." Both name and instrument were derived by the Arabs from Persia (see Persia, Fig. 4). The most common form of Kemangeh is the *Kemangeh a'gouz* (Fig. 2, Arabia). Its total length is a little over three feet. The body is usually made of three-fourths of a cocoanut-shell, and is pierced with many small holes. The face is covered with fish-skin, upon which rests the bridge. Below the body projects a long foot of iron, which rests upon the ground, and supports the instrument, as in our violoncello. The ordinary Kemangeh has two thick strings of horse-hair, each consisting of about sixty hairs. At the lower end these are fastened to an iron ring just below the body, and at the upper to two short pieces of lamb's-gut, by which they are attached to the wooden tuning-pegs. Just below the junction of the horse-hair and the gut strings, a double band of leather passes round the neck of the instrument outside the strings. The bow is nearly three feet long, and is usually of ash. "The horse-hairs, passed through a hole at the head of the bow-stick, and secured by a knot, and attached at the other end to an iron ring, are tightened or slackened by a band of leather, which passes through the ring just mentioned, and through another

[1] Fétis, ii. p. 131.

ring at the foot of the bow."[1] In playing, the bow is held in the right hand, between the thumb and first finger; the second, third, and fourth fingers passing between the strings and the wood. In passing the bow from one string to another, the performer usually turns the instrument an angle of about sixty degrees.[2] As might be expected from the above description, the tones of the Kemangeh are "dull, hoarse, and confused."[3] It is, however, extremely popular with the Arabs, especially in Egypt and Syria. It is an indispensable part of every orchestra; its player usually sitting opposite to the player of the Kanoon, or on his right hand.

Other varieties of the Kemangeh are mentioned by Fétis.[4] The *Kemangeh Farkh* is a smaller form of that which has just been described. The *Kemangeh Roumy* resembles our own violin in shape. It is strung sometimes with twelve, sometimes with fourteen, strings. A second form of the Kemangeh Roumy has a long, narrow body, in which the handle is made of the continuation of the same piece of wood. It is usually about a foot and a half long, and has four strings of gut. The Kemangeh of the Turks will be described later.

The *Rebâb* or *Rabâb* (Fig. 1, Palestine; Fig. 3, Egypt) is one of the most ancient of the Arab stringed instruments. Unlike the Kemangeh, which was derived from Persia, it probably originated with the Arabs themselves.[5] Two kinds of Rebâb are found in Mohammedan countries to-day. They differ only in the number of strings, — the *Rebâb esh moganny*, or "singer's Rebâb," having two; while the *Rebâb esh sha'er*, or "poet's Rebâb," has but one. In both the body is formed of a square frame of wood, covered on both sides with skin. In some cases, however, as in the Egyptian specimen in the present collection, the back is left open as in the modern banjo. The Rebâb, like the Kemangeh, has a long iron

[1] Lane, p. 61. [2] Ibid., p. 63. [3] Fétis, ii. p. 137.
[4] ii. pp. 138–142. [5] Fétis, ii. p. 144.

foot, by which it is supported. Its strings are of horse-hair, and fastened as in the Kemangeh. The bow also resembles that of the latter instrument. Its compass is narrow, extending only from D to B.[1] It is never employed in orchestral music, but is used to accompany singing and reciting. I have already mentioned the fact that the Rebâb esh sha'er is the favorite instrument of the Egyptian improvisers. According to Naumann,[2] the Rebâb was introduced by the Arabs into Southern Europe in the eighth and ninth centuries, and may be regarded as the precursor of many of our modern stringed instruments. In the twelfth century, we meet with it "as the Rebek, or Rebec, of the Provençal troubadours, who imported it from the East during the Crusades."[3]

The Rebâb of Algiers (Fig. 2), though having the same name as the preceding, is really a different instrument. Its body is made of wood, and is short and narrow. That of the present specimen is shaped in imitation of a fish. The strings are of gut, — two in number, — and are played with a short curved bow.

II. The wind instruments of the Arabs are many and various. Only the most important can be mentioned here.

The Arab name for flute is *Nay* (Fig. 10, Syria; Fig. 4, Palestine). Many varieties are found, differing both in size and in construction. Some are adapted to render thirds of a tone, others only half tones. Different Nays are tuned in different keys. So, also, different classes have their special Nay. Thus we distinguish the Dervish Nay, the Nay of the beggars, etc. As a result of this extreme diversity, few musicians can play more than four or five of the different varieties. The celebrated Mohammed Kachoueh of Cairo is reported to have been able to play on eight different kinds, but his case was exceptional.[4] The two most common varieties

[1] Ambros, i. p. 461.

[2] i. p. 107.

[3] i. p. 107. It should, however, be said that the European rebec was probably derived not from the Arab, but from the Persian form of the instrument, which is described later.

[4] Fétis, ii. p. 154.

are the *Nay-chah*, or "large Nay," which has seven holes,—six in front and one behind (Fig. 10, Syria); and the *Nay-giref*, or "little Nay," which has eight holes,—six in front, one behind, and one on the side. The Nay of Palestine (Fig. 4) has seven holes in front, one behind, and one on each side near the top. When not in use, it is usually carried in a case of hollowed wood. The Nay is neither a traverse nor a vertical flute; but the extremity is placed against the lips at an oblique angle, the performer "blowing through a very small aperture of the lips against the edge of the orifice of the tube, and directing the wind chiefly within the tube. By blowing with more or less force, sounds are produced an octave higher or lower. In the hands of a good performer, the Nay yields fine, mellow tones; but it requires much practice to sound it well."[1]

Various instruments of the vertical flute and flageolet families are found. To the former class belong the *Minjairah* of Syria (Fig. 9), and the *Gasbâ* of Algiers (Fig. 5). Both are simple reed pipes, each having six finger-holes. To the latter class belongs the *Shaberba* (Chabbabeh), a Persian instrument (Fig. 7), which is also found among the Arabs. This has eight finger-holes,—seven in front, and one behind. According to Villoteau,[2] the Shaberba can produce with great ease intervals of a third (sometimes also of a quarter) of a tone.

Instruments of the oboe family are very common among the Arabs. The ordinary name in Arabia and Asia Minor is *Zourna* (Sourna) (Fig. 10, Turkey). The Egyptian *Zemr* and the Algerian *Raïta* (Fig. 4) are other names for the same instrument. The oboe is a very old Arabic instrument, several varieties having been described by Alfarabi, under the name of Sournay, as early as the tenth century. The form commonly found at the present day consists of a tube of wood pierced with eight large finger-holes (seven in front, and one behind), and five (sometimes seven) small

[1] Lane, ii. p. 70.

[2] Quoted by Fétis, ii. p. 153.

holes near the base. At the top of the tube, just below the mouthpiece, is fastened a movable neck of wood, the lower end of which projects down some distance into the interior of the instrument. This is cut in a peculiar way, so that, when placed in one position, it allows the air to pass freely through all the holes; and when turned to another, it closes the top hole, together with the eighth hole in the rear. In this way the pitch may be altered. When the top holes are closed, the small holes near the base come into use. The Zourna is furnished with a reed mouthpiece, such as is found in all instruments of the oboe family. Three different sizes are found. Fig. 3, under Palestine, which is catalogued as a trumpet, is probably an oboe of the largest size.

Another form of oboe, called *E'râqyeh*, is probably of Persian origin.[1] This has nine finger-holes, — seven in front, and two behind, — and is composed of a single piece of wood. Its compass is a little over an octave, and it produces intervals of a quarter of a tone.

Several double reed pipes are found among the Arabs. Such are the *Zummarah* and *Arghool* of Egypt, and the *Mijwiz* and *Urgun* (Irghun) of Syria (Figs. 7 and 8). The Zummarah consists of two parallel pipes from ten to fourteen inches long, each of which is pierced with six finger-holes, and furnished with a movable mouthpiece of split wood. (See illustration of Mijwiz.) The player takes both of these mouthpieces quite within his lips, and blows while fingering the holes. The sound is harsh and disagreeable. The Zummarah is frequently used by the Egyptian boatmen as an accompaniment to their Darabukkehs, or earthen drums.[2] The Mijwiz of Syria is only another name for the same instrument. A more striking instrument is the Arghool, or Irghun. This resembles the bagpipe in having only one of its tubes pierced with finger-holes, the other serving as a drone. The mouthpiece is the

[1] Fétis, ii. p. 150 *seq.*

[2] Lane: Modern Egyptians, ii. p. 74.

same as in the Zummarah. The characteristic feature of the Arghool is the fact that it has three movable pieces of different length, by the addition of one or more of which the length of the longer tube may be increased, and the pitch consequently altered. The different sections are connected by cords, to prevent them from being lost or displaced. The total length of the Arghool, when increased by all three pieces, is a little over three feet. Its tone, as might be expected, resembles that of the bagpipe. Like the Zummarah, it is a favorite instrument with the Egyptian boatmen.

A rude bagpipe, called *Zummarah Bi-soan*, is also occasionally seen in Egypt. Its bag is made of a small goat's-skin.[1]

The *Nefyr*, or Arab trumpet, is of special interest, as it was probably the ancestor of all the brass wind instruments of modern Europe. "From the most ancient times," says Ambros,[2] "the peoples of the North were led forth to battle, not to the blast of trumpets, but to the noise of wild-sounding horns,—of whose horrible roaring the old writers cannot say enough,—and to the harping of their bards, and the singing of the war-song." It was only through the Saracens of Spain, and later through the returning Crusaders, that the Europeans were made acquainted with the military music of the Arabs. The latter brought back with them the knowledge of the Nefyr, and the other military instruments of the Arabs, which, in turn, became the foundation of the military music of modern Europe.

The Nefyr is a long, straight tube of brass, with bell and mouth-piece resembling that of our own trumpet. Its compass is considerable; but it is used rather to emphasize the rhythm of the war-music, than to give any distinct air. "In the midst of the horrible hubbub produced by the drums of all kinds, the kettledrums, castanets, and other noisy instruments, in their military processions, the Arab

[1] Lane, ii. p. 74. The same instrument seems to be described by Fétis under the name of Souqqarah (ii. p. 160).

[2] i. p. 465.

trumpeters content themselves with sending forth the shrillest possible sounds at random, and without concerning themselves about the discords which they produce."[1]

Another trumpet, called *Cheipour*, used by the Arabs of Asia Minor, is principally interesting "because it resembles the trumpet played by an Assyrian warrior on a bass-relief of Nineveh, and the Hebrew trumpet represented on the Arch of Titus at Rome."[2]

III. Finally we consider the instruments of percussion of the Arabs. These, while not playing relatively so important a part as those of most of the other nations which we have been considering, are yet numerous and interesting.

One of the most characteristic of the Arab drums is the *Naggarah*[3] (Nakkarah, pl. Nakakeer). (See Fig. 4, Palestine, and Fig. 4, Syria). This consists of a pair of small drums, something like the Indian Tublas. They are ordinarily made of copper, and covered with skin. The Palestinian specimen in the present collection is, however, made of china. The heads are beaten with a pair of little wooden sticks. Larger varieties are also in common use. Such are the great Nakakeer, or kettledrums, which are carried in the religious processions in Cairo and other large cities. These are of unequal dimensions; the diameter of the larger being at least two feet, while that of the smaller is less than a foot and a half. "They are placed upon a camel, attached to the fore part of the saddle upon which the person who beats them rides. The larger is placed on the right."[4] A single kettledrum of the same kind is called *Tabl Shamee*, or "Syrian drum" (Fig. 6, Palestine). It is usually from a foot to a foot and a half in diameter, and is suspended by a string passing round the neck of the performer. It is beaten with two slender sticks.[4]

[1] Fétis, ii. p. 156.

[2] Ibid., p. 157.

[3] According to Engel (p. 63), the European *Naker* was derived from this instrument.

[4] Lane, ii. p. 72.

To the family of kettledrums belongs, also, the *Baz*, or dervish drum (Fig. 1, Egypt; Fig. 21, Turkey), which is usually about six or seven inches in diameter. This is used by the dervishes in religious processions and in begging. It is "held in the left hand by a little projection in the centre of the back, and beaten by the right hand with a short leathern strap or a stick."[1]

The *Tabl Beledee*, or "country drum," of Egypt resembles our ordinary military drum, but is not so deep. It is hung obliquely in front of the body, and is beaten with a stick.[1] A drum of similar character is the *Davool*, or "bass drum."[2] This is beaten on one side with a peculiarly shaped thick drumstick, and on the other with a "long, thin, tapering rod, which touches at once the entire length of the opposite surface."

The Arabs have a peculiar kind of hand-drum, called *Darabukkeh*[3] (Darabouka, Derbouka, Dirbukkeh). This has a vase-shaped body, sometimes made of pottery and sometimes of wood, and open at the bottom. The top is covered with fish-skin. Four specimens are found in the present collection (Fig. 5, Arabia; Fig. 5, Syria; Fig. 7, Palestine; and Fig. 22, Turkey). The first three are made of pottery; the fourth, which is a handsomer specimen, of wood. The wooden Darabukkeh is commonly found in the harems of persons of moderate wealth, and is used by the women for their diversion. The body is often beautifully decorated with mother-of-pearl and tortoise-shell. The Darabukkeh is held under the left arm, and is beaten with both hands. The player varies the tone by striking the head, now on the middle, and now near the edge.[4] The earthen Darabukkehs are most frequently used by mountebanks, jugglers, and the wandering musicians who accompany the dancing-girls.[5] The boatmen of the Nile also use an earthen Darabukkeh of large size.

[1] Lane, ii. p. 72.

[2] Van Lennep, p. 608.

[3] The form of this drum is very ancient. According to Van Lennep, it "has been found in Egyptian tombs, and is represented on Egyptian and Assyrian monuments."

[4] Lane, p. 74.

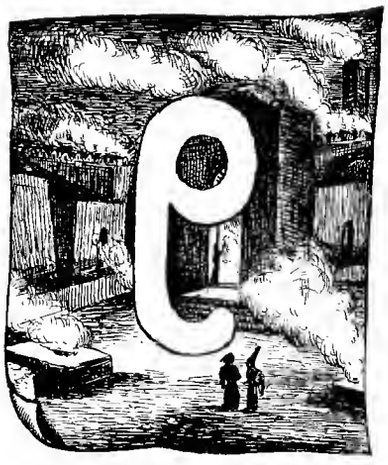
[5] Fétis, ii. p. 164.

The ordinary tambourine of the Arabs is called *Târ* (Fig. 6, Syria; Fig. 7, Algiers). It is usually from nine inches to a foot in diameter, and is furnished with five sets of brass clappers. It is a favorite instrument in the harem. A smaller tambourine, called *Rikk*, is often used at private concerts. The *Bendir* (Bendyr) of Algiers (Fig. 6) is really a large tambourine. This has no clappers; but across the back of the head are stretched five strings of gut, to increase the resonance, as in our own snare-drum.

Cymbals and castanets are in common use among the Arabs. The former are used in military music, and by the dervishes in religious processions. The latter are called *Sagat*, and are used by the public dancers, both male and female. They are usually made of brass. Each dancer has two pairs of these instruments, which are fastened by loops of string to the thumb and second finger,[1] and are beaten together with greater or less rapidity, so as to keep time with the motions of the dancer. A set of Syrian castanets, called *Faggeishâh*, is shown in Fig. 3, under Syria.

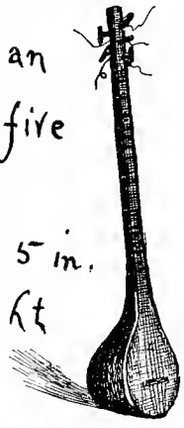
[1] Lane, p. 72.

PERSIA AND TURKEY.

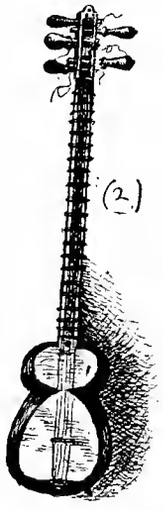


Persia

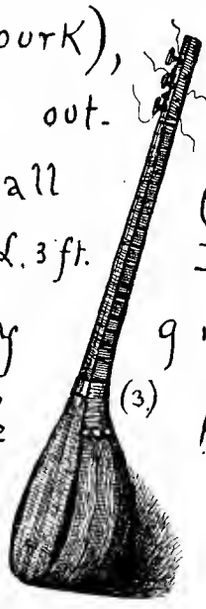
1. Sitar, an instrument of the Tamboura family. Has five wire strings, passing over frets of gut. L. 2 ft. 5 in. D. of head 5 in. Th. of head 5 in. Played with fingernail of right forefinger.



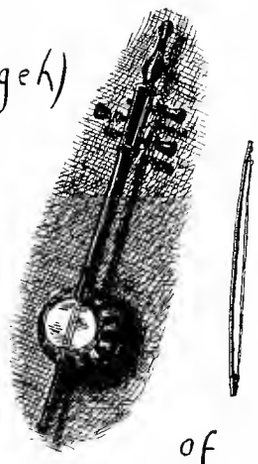
2. Tar (Tamboura Bouzourk), held in the lap with the face outward, and played with a small plectrum of wax and brass. L. 3 ft. D. of head 7 in. Greatest W. of body 9 in. Th 7 in.



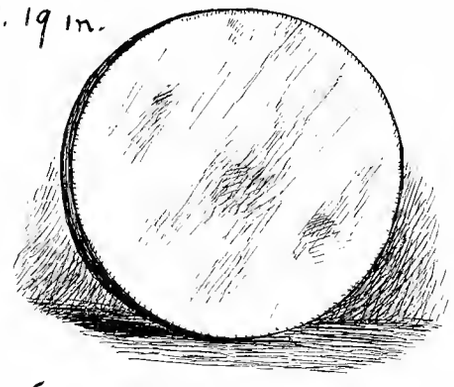
3. Sŭz. Of wood, the handle inlaid with mother of pearl Has five wire strings Played with a small wooden plectrum. L. 2 ft. 9 in. D. of head 7½ in. Th. 7 in.



4. Kamăncha (Kemangeh) Violin The favorite instrument on festive occasions, especially among the rural population. It has three strings of wire Tuned L. 3 ft. D. of head 5 in. Greatest width of body 7 in. Th. 7 in. L. of bow 1 ft. 11 in.



5. Kouwal, Tambourine D. 19 in. The inside ornamented with bells, rings and coins.



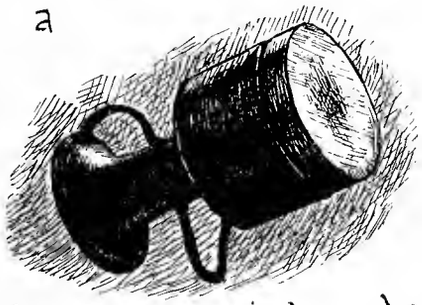
6. Shepherd's Fife. L. 1 ft. 11 in.

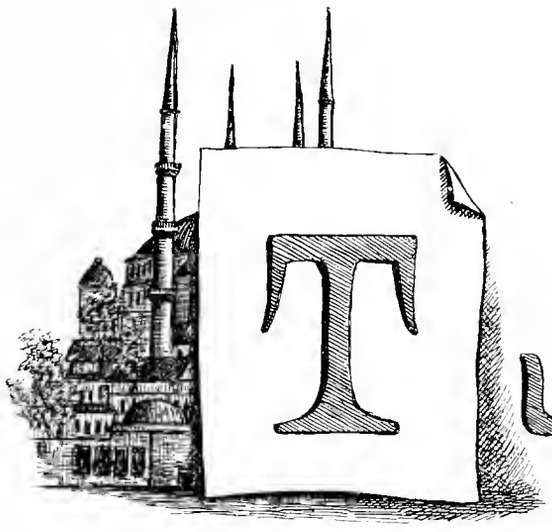
(7.)

(6)

7. Shaberba, or Chabbabeh, a Kind of flageolet. Has seven holes on the upper, and one on the under side. L. 1 ft.

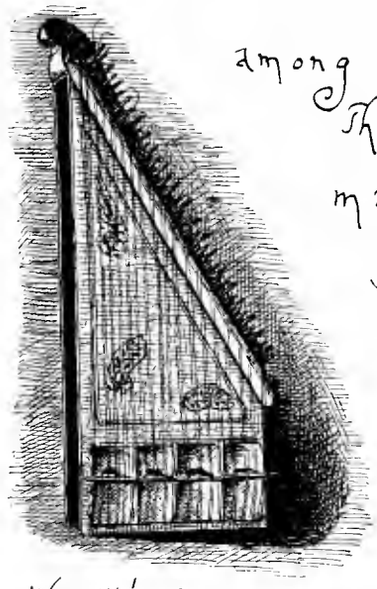
8. Dombeg, a very popular hand drum. Beaten with the flat of both of the fingers hands. Used to accompany social dances and singing D. of head 10 in., of base 9 in. Total L. 16½ in.



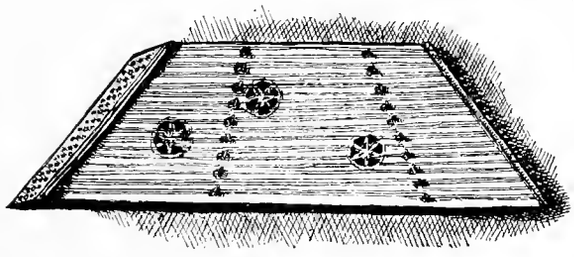


Turkey

1. Kanoon, a favorite instrument among the ladies of the wealthy classes. The body of light wood, beautifully marked. Strung with 72 strings of gut, in sets of 3, producing 24 distinct tones. Played with a small plectrum of tortoise-shell or silver.



L. 3 ft. W. 14½ in.

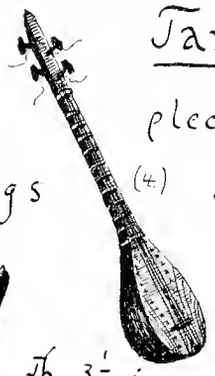


2. Santir, has 18 sets of wire strings, each set consisting of 4 strings which are tuned in unison. In the middle are two rows of movable bridges (not unlike chessmen) by means of which the pitch is regulated. Played with two little wooden hammers. L 2 ft. 8 in. W. 11½ in.

3 - 6. Instruments of the Tamboura family, played with a plectrum.

(3)

No. 3 has four wire strings L. 2 ft. W. 5 in. Th. 5 in.

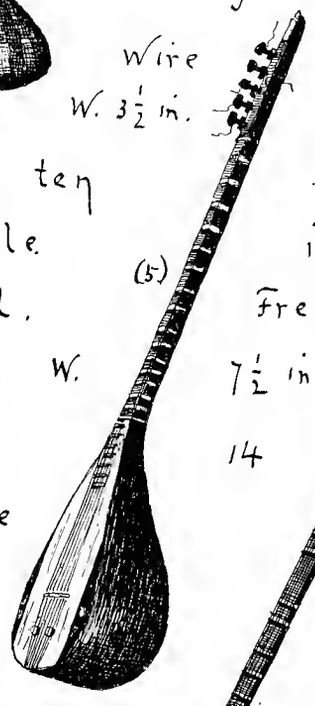

(4)

No. 4 has four gut. strings L. 22 1/2 in. W. 3 1/2 in. Th. 3 1/2 in

No. 5 has ten wire strings. The handle inlaid with mother-of pearl. Frets of gut. L. 3 ft. 4 in. W. 7 1/2 in. Th. 8 1/2 in.

(6.)

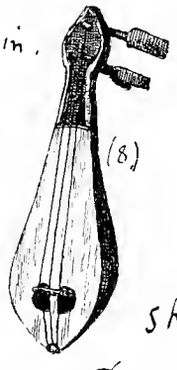
No 6 has 14 wire strings. The handle and face of light wood, the body dark.


(5)

L. 3 ft. 3 in. W. 6 1/2 in. Th. 7 in.

7. Tanbour Kebyr Tourky Turkish Tambour or large boura. Has 8 wire strings which should be tuned in the body circular in shape. L. 4 ft. 4 in. D. 13 in.

(7)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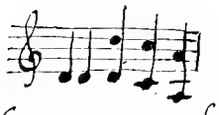
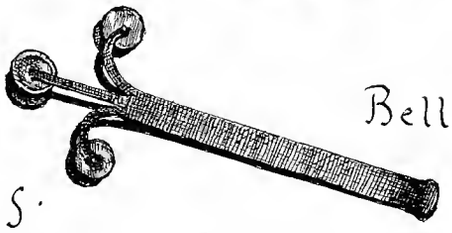

8. Kemangeh - violin Has 3 strings of gut and wire Played with a bow L. 16 1/2 in. W. 6 in. Th. 2 in.

9. Ghaïda. Bagpipe.

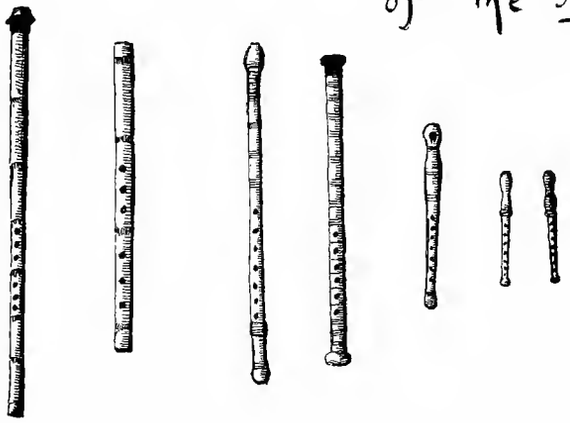
10. Zourna. Oboe. Made of light wood. Has seven finger-holes in front and one behind. Also five holes near the base, which are used when the pitch is to be altered

L. 1 ft.

11. Ge'lé-Masha, or Bell-Tongs, a kind of cymbals. Iron, the clappers of brass. L. 1 ft. 8 in.

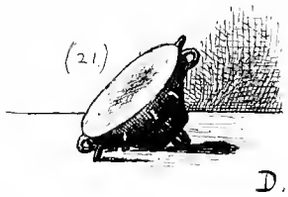


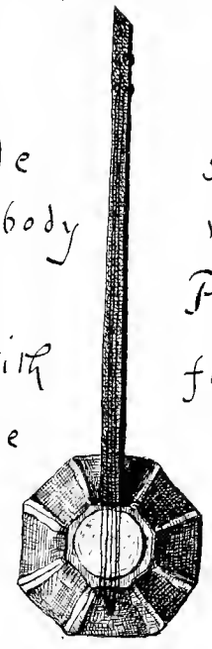
12-18. Instruments of the Flute (Nay) or Flageolet family - the longest 2 ft. 2 in., the shortest 6 in., long. The second should probably have a mouthpiece like the first, but it has been lost.



19. Small Cymbals, probably used as Castanets. D. 2 in.

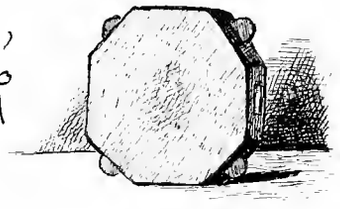
20. Fellahee, a rude stringed instrument. The body wood, the head covered with skin. Probably strung with five strings of coarse gut. L. 31 in. D. of head 5 in. Body octagonal. W. 9 in. Th. 6 in.





21. Dervish Drum. Brass, covered with skin. D. 5 in.

22. Darabouka. A large hand-drum of light wood, with covered head D. of head 8 in. L. 1 ft. 6 in.



23. Daïra. Tambourine. Wood, of an octagonal shape. Head, of skin, painted red. Sides decorated with looking-glass. D. 8 in.

XII.

MUSIC OF THE PERSIANS AND TURKS.

I HAVE elsewhere spoken of the intimate connection, both historical and theoretical, between the music of the Persians and that of the Arabs. The same remarks may be applied with equal truth to the relation between Persian music and that of the Turks. The latter, like the Arabs, not only received from the Persians most of their musical instruments, but were profoundly influenced by them in their theory of music also. Yet the musical history of the Arabs and that of the Turks differs in one very important respect. Strongly as the former were stimulated by the advanced musical culture which they found among the Persians, it was only to the development and modification of a music which was already their own. The Persian system and that of the Arabs acted and re-acted upon each other, and produced a new music, the roots of which cannot be exclusively traced to either. The Turks, on the other hand, when in their turn they conquered the Persians, seem to have adopted bodily the musical system of their new subjects. Their music, therefore, unlike that of the Arabs, does not demand a separate treatment, but may properly be classified with that of the Persians.

Little information has come down to us concerning the character or history of the music of the ancient Persians. We know that hymns had a place in the religious rites of the followers of Zoroaster, and that the rough shepherds of Medea were fond of listening to the simple music of a rude flute or pipe.[1] In the rich cities of Persia the art undoubtedly reached a high state of development

[1] Ambros, i. p. 393.

at an early date. According to Ambros,[1] the music performed at the courts of Susa and Persepolis, where the Great King felt himself the successor of the mighty monarchs of Nineveh and Babylon, probably resembled in character that of Assyria and Babylonia. We hear from Athenæus,[2] that Darius had in his harem no less than three hundred and twenty-nine female musicians. Xenophon also, in his "Anabasis," speaks of the myriad female musicians of the Persian king. But these few facts form almost the sum of our knowledge of the music of Persia before the Christian era.

In the time of the Sassanides, music was employed in all the festivities of the Persian Court. The celebrated bass-reliefs of Tackt-i-Bostan, supposed to date from the latter half of the sixth century, A.D., shed some interesting light upon the state of music at that time. These sculptures are thus described by Engel:[3] "They form the ornaments of two lofty arches, and consist of representations of field sports and aquatic amusements. Some boats are filled with women playing upon harps. . . . In one of the boats is seated a man in an ornamental dress, with a halo round his head, who is receiving an arrow from one of his attendants; while a female, who is sitting near him, plays on a Trigonon. Towards the top of the bass-relief is represented a stage, on which are performers on small, straight trumpets and little hand-drums; six harpers; and four other musicians, apparently females,—the first of whom plays a flute, the second a sort of Pandean pipe, the third an instrument which is too much defaced to be recognizable, and the fourth a bagpipe." The use of music to accompany the hunt recalls what we have heard in a previous chapter of the practice of the early Indian kings. In the time of Khosrau (Chosroes) Parviz, we hear of wonderful singers, "whose voices surpassed in sweetness the song of the nightingale."[4] Especially celebrated was a certain Barbud, whose singing was so sweet that no heart could withstand it.[4] The high esteem in which music was held at this

[1] i. p. 393. [2] xiii. 87, quoted by Ambros, i. p. 393. [3] p. 58. [4] Ambros, i. p. 429.

time is attested by the story of the dream of Chosroes. The latter, having been banished from the court of his father Hormizd, had fallen into a deep despondency, when one night his grandfather, Nushirvan the Just, appeared to him in his sleep. "Why are you sorrowful, my son?" he said. "Dismiss your care; for you shall have for your possession four things, each one of which is worth as much as the government of Iran. For the horse which you have lost, you shall receive two others, whose names will be Schâbdiz (dark) and Gülgun (rose-color). The nails of your favorite harper are worn away: you shall have in his place two others, whose like the world does not contain, and whose names will be Barbud and Nekisa. The third gift will be a painter, more skilful than Mani of Chin. But the last gift will be Schirin, the fairest of women, whose beauty casts the sun into the shade."[1] This story well illustrates the esteem in which music was held by the Persians, when they succumbed to the irresistible onset of the followers of Mohammed. The history of Persian music after the Arab conquest has already been outlined.

Unfortunately no definite information has reached us as to the character of the early musical system of the Persians. Neither in the Zend nor the Parsee has any musical treatise been preserved[2] corresponding to the Sanscrit treatises from which is drawn our knowledge of the music of the Hindus. The field is therefore open for the speculations of the musical historians. According to Ambros,[3] as we have seen, the music of the early Persians, like their architecture, preserved the traditions of the old Assyrian culture. Fétis, however, in his history,[4] propounds and defends at considerable length the theory that the music of the ancient Persians closely resembled that of their Aryan kinsmen the Hindus. This resemblance he traces not only in points purely theoretical, — such as their mystical association of the notes of the scale, etc., with the

[1] Ambros, i. p. 430.
[2] Fétis, ii. p. 351.
[3] i. p. 429.
[4] ii. p. 351 *seq.*

various powers of nature,[1] — but even in the construction and divisions of the octave. Whereas the Hindus divided the octave into twenty-two Sruti, the Persians, according to Fétis, divided it into twenty-four intervals, differing in value according to their position.[2] Their keynote, or base, was A, and their system embraced forty-nine sounds. By a system of combination, resembling that employed by the Hindus, they obtained the number of eighty-four keys, some principal and others secondary. Yet this combination must be traced to a comparatively late date; for the scales of these keys are founded, not on the old Persian division into fourth tones, but on the later Arabic intervals of third tones. No better proof could be desired of the impossibility of distinguishing between the musical systems of the two peoples after the time of their union.*

* Note. — Those who are interested in pursuing the subject further are referred to Fétis (ii. livre vi.), where the whole argument for the division of the Persian octave into twenty-four intervals is very fully and ingeniously presented. He lays down the theory (p. 358 *seq.*) that the music both of the Hindus and the Persians was originally based upon a scale made up of quarter-tone intervals; and that "the division of the octave into twenty-two Srutis, as set forth by the Hindu theorists, instead of twenty-four intervals a little smaller, was a change of the original tonality brought about by time." "Moreover," he continues, "it must not be forgotten, that, from the very nature of these conceptions of little intervals of sound, variations in their form must have been frequent, and, as a matter of fact, were so. The differences in the conformation and character of the keys of the music of India, as found in the different provinces, give us the proof of this. The same was true in Persia, according to the testimony of Farabi; and we shall find the plainest demonstration of it in the fact of the introduction of the third tone among the elements of tonality among the Persians, at the time of the conquest of their country by the Arabs." I have already mentioned the fact, that, according to Fétis, traces of the old Persian division into quarter-tones survived in certain provinces long after the Arab conquest, — a fact which is attested by the divisions of the handles of some of their stringed instruments (ii. p. 370). It must be said that Clément considers the theory of Fétis utterly without foundation. "It seems to me," he says, "that these subdivisions of tone had but a single object, — that of making the intonation of one half-tone slide over to that of the half-tone following or preceding; an effect analogous to that obtained by players of the violin and the guitar. Moreover, the comparatively little importance attached by the Orientals to simultaneous sounds, to harmony, and especially to counterpoint, makes them concentrate their attention upon the variation and nice expression of melodic effects." (*Histoire de la Musique*, p. 79.)

[1] ii. p. 371 *seq.*

[2] ii. p. 353.

The period of the caliphs was the golden age of Persian music. I have already spoken of the prominent place held by Persian musicians at the court at Bagdad. But after the power of the caliphate began to wane, and Persia fell under the domination of the Seljuk Turks, and later of the Mongols, the history of Persian music is enveloped in a long obscurity. The first certain fact which has come down to us is in connection with the capture of Bagdad by Amurath IV., in 1638. At this time, five Persian musicians were taken back by the conqueror to Constantinople. From these the Turks learned the musical system of the Persians, and their passionate and plaintive melodies.[1] An interesting story is told of Amurath (whose reputation is any thing but an enviable one), to the effect, that, during the execution of the barbarous sentence which condemned to death thirty thousand of the gallant defenders of the captured city, he was approached by the celebrated Persian musician Schah-Kuli. The latter, accompanying himself with his harp, began to sing in so touching a way of the misfortunes of Bagdad and its inhabitants, that Amurath was moved to tears, and ordered the carnage to cease.[2] Whether we choose to believe this story or not, it is certain that this Schah-Kuli was one of the five musicians whom Amurath carried back to Constantinople in order to instruct his people in the system of Persian music.

Thus were the Turks made acquainted with the music of Persia. According to Fétis,[2] they long preserved the old Persian tradition of the division of the octave into twenty-four intervals. Whether this be true or not, it is certain that the system in use among the Turks of the present day is practically identical with that Persian-Arabian system which has been described in a previous chapter. One interesting point of difference should, however, be mentioned. Whereas the base, or keynote, of each of the eighty-four scales of the Persians is A, that of their pupils, the Turks, is one note lower, or G.

[1] Fétis, ii. p. 389.

[2] Ibid., p. 353.

The remarks which have already been made as to the present state of music among the Arabs apply largely also to the modern Persians and Turks. A few additional points of interest may be added. In Persia, to-day, music is extremely popular among all classes. Those who can afford it have troops of paid musicians attached to their service. Sir William Ouseley, the well-known traveller, speaks frequently of having been entertained after dinner with music, both instrumental and vocal. In describing one such occasion, he says, "After we had sat about an hour, a *mirza*, who in his [the minister's] absence received guests, called for the musicians; and a band of *sazindeh*, or instrumental performers, immediately assembled, — the most excellent that Teheran, or perhaps any other Persian city, could afford. With these was one man who exerted his voice only. The instruments were two *Kemancheh* [or violins]; . . . one *Santyr*, or dulcimer, the wire strings of which were struck with little crooked sticks; one *Schtareh*, or guitar; and two *Daïreh*, or tambourines. All the performers occasionally joined their voices to the tones of the instruments; and the man who led this band (playing on the Kemancheh) seemed, at some passages, to be delighted and inspired both by the words and music, which was of a solemn or rather plaintive kind, and, I confess, gratified me exceedingly."[1] But not only is music popular among the wealthy and educated Persians: all classes of the people are fond of it. Wandering musicians are found everywhere who play the Kemangeh, the Tamboura, and the Schtareh. At Teheran, Ouseley heard on all sides the sound of musical instruments, which continued till quite late at night. The police, who are otherwise extremely strict, and arrest any one found in the street after a certain hour, are lenient in all matters where music is concerned.[2] Especially popular is music at all social reunions or family festivals. It has an

[1] Travels in Various Countries of the East, more particularly Persia, iii. p. 350.

[2] Fétis, ii. p. 415.

important place in marriage festivities. When the bride is escorted to the bath on the morning of the wedding, the procession of women is preceded by six or eight musicians playing the oboe, the flute, and the drum. The marriage feast is accompanied by convivial songs, and the tones of the Kemangeh and the Schtareh.[1]

The Persians, as a rule, have the finest voices in the East. They are free from the nasal tone so common, and so disagreeable, among the people of Western Asia, of Egypt, and of North Africa.[2] "The guttural tones are more softened by the Persian singers than by the Arabs. They sing with more taste, more expression; and the ornaments of their melodies are less numerous, and better adapted to the character of the phrases."[2] European travellers commonly speak with pleasure of the Persian songs. Yet we must not suppose that the Persian melodies differ altogether in character from those of the Arabs, which have been described. Ouseley speaks of the tunes which he heard, as being "little more than a succession of trills and shakes."[3] It seems, in truth, as if what to our ear appears but superfluous ornament, is to the Oriental a necessary part of true music.

In Persia, as in other Mohammedan countries, music has an important place in the service of the mosques, as well as in the monasteries of the dervishes. The voices of the Persian dervishes are especially fine. Some real virtuosos are found among them, whose services are eagerly sought by the rich and great. They are especially celebrated for their love-songs, which they are said to render with remarkable, and in some cases even with dangerous, effect.[4]

In general, we may say, that, in spite of the many shocks to which the Persians have been subjected, both by conquest and otherwise, and the consequent changes in the character of their music, they have yet preserved a musical organization superior both

[1] Fétis, ii. p. 415. [2] Ibid., p. 412. [3] Quoted by Fétis, ii. p. 390. [4] Fétis, ii. p. 394.

to that of the Arabs and that of the Turks. This superiority is evident, not only in the works of their poets, and in the composition of their songs, but also in the character of their execution, both vocal and instrumental.[1]

I need add but a word as to the present state of music in Turkey. What has been said as to the music of the Arabs applies here even more closely than to what precedes. Up to the time of the Greek revolution, the most able musicians of Turkey were Greeks of Constantinople and of Smyrna.[2] Many of the Persian instruments have, indeed, passed through the Turks to the modern Greeks. (See Greece, Figs. 1, 2, 3, and 6[3]). Indeed, the relation of the two latter peoples in musical history is not unlike that existing at an earlier time between the Persians and the Arabs.

Singing is popular with the Turks, as with all Mohammedan peoples. The favorite songs have to do either with love or with war. Those of the former class are usually accompanied by the Tamboura Bouzourk.

Instrumental music is common, both within doors and without. In the former case, it is exclusively performed by female slaves.[4] The lute, the tamboura, and the tambourine are the instruments most commonly used in the harems of Turkey, and, with the castanets of the dancers, seem to possess a peculiar charm for the stolid and dreamy Turk.[5] The music of the cafés and the streets does not differ essentially in character from that in all other Mohammedan countries.

For their military, or *Janissary*, music, the Turks employ a special group of percussion and wind instruments. "Belonging to

[1] Fétis, ii. p. 416.

[2] Many of the most popular Turkish songs of the present day are of Greek composition. The favorite singer of the Sultan Mahmoud was a Greek named Chiveli-Oglou Zorgaki. Fétis, ii. p. 395.

[3] Fig. 6, catalogued as a clarionet, is really an oboe. It differs from the Zourna only in having seven small holes near the base, instead of five.

[4] Musical ability greatly increases the value of a slave.

[5] Naumann, i. p. 94.

this class are 'Mohammed's standard,' the national instrument of the Turks, consisting of a brass frame with numerous bells, carried on a long, perpendicular pole, the point of which is surmounted by the crescent and the well-known streamers of horsehair; an elongated roll-drum, narrowed towards the base; a big drum, triangle, metal clappers, shrill piccolos and oboes, trumpets and horns, — forming an *ensemble* most effective and warlike."[1]

The whirling dervishes of Constantinople accompany their performances not only with the voice, but also with the plaintive tones of the Nay, or flute. They devote themselves especially to the study of this instrument, and are considered the most skilful flute-players of Turkey. It is interesting to notice in this connection that they were once banished from Constantinople on the ground that they introduced music into the Mohammedan worship; but they were subsequently restored by the Sultan, on claiming that the Koran contained nothing to forbid the use of song or of the flute in connection with prayer or religious exercises.[2]

[1] Naumann, i. p. 109.

[2] Fétis, ii. p. 398.

XIII.

INSTRUMENTS OF THE PERSIANS AND TURKS.

AFTER what has already been said, it may seem superfluous to devote a separate chapter to the instruments of the Persians and the Turks. I shall therefore confine myself strictly to the points which have not already been touched upon, and to the few additional statements which may seem necessary in further explanation of the drawings in the Catalogue.

I. INSTRUMENTS OF PERSIA.

In olden times, the harp, *Chang*, was a favorite instrument with the Persians.[1] It is represented on the bass-relief of Tackt-i-Bostan, to which reference has already been made. According to this representation, its shape was triangular; the frame consisting of two pieces of wood united at a right angle. The form of the Chang continued essentially unchanged down to comparatively modern times. Drawings of the fifteenth and sixteenth centuries show us a form of the instrument in which one arm is gracefully curved; but in these, as in the earlier representation, the front pillar is wanting.[2] The use of the Chang passed from the Persians to the Arabs, who gave it the name of *Junk*, and to the Turks, as is shown by an interesting illustration of the seventeenth century.[3] At the present day, however, the harp has almost entirely gone out of use among all these peoples.

[1] Engel, p. 58. [2] Lane: Arabian Nights, i. p. 205. [3] Engel, p. 60.

The stringed instruments now in use in Persia are the Oud (or lute), the Schtareh (or guitar), the Tar, various kinds of Tamboura, the Santir, the Kemangeh, and the Rebâb. The first has already been sufficiently described. Unfortunately, owing to the difficulties experienced in fingering the lute, it is now rarely found among the Persians. It is seldom or never mentioned by modern travellers. The *Schtareh*, or guitar, corresponds to the Kuitra (or Qitarah) of the Arabs and Moors. This instrument Fétis believes to have been received by the Persians from the Arabs, as the name is not of Persian origin. The *Tar* (Fig. 2), although classified by Fétis with the Tambouras (*Tamboura Bouzourk*), seems rather to belong to the guitar family. The name *Tar* signifies literally "a string." The body of the instrument is made of wood, covered with thin skin or parchment, through which, in some cases, the colors of the ornamented handle are clearly discernible. (See Fig. 6, Russia.) The handle is often beautifully inlaid. The Tar has twenty-four frets of gut. It is strung with five wire strings, two of steel and three of brass, tuned to three distinct tones, and is played with a small plectrum of wax and brass. It is the most popular instrument among the Persians of the present day.[1]

The *Sitar* (or Seh-Tar) (Fig. 1) is a small instrument of the Tamboura family, strung with five wire strings, and played with the finger-nail of the right forefinger.[2] It has nineteen frets of gut. The derivation of the name has been already explained in connection with the Indian instrument of the same name. Formerly the Persian Sitar was even more popular than the Tar. The *Süz* (Fig. 3) is a larger Tamboura, also with five wire strings. It is played with a small wooden plectrum, and yields an exceedingly

[1] The same instrument is described by Engel (p. 157) under the name of *Ujuk*, or *Qitar*.

[2] The similarity of the names *Sitar*, *Qitar*, and *Schtareh*, together with the fact that the Tar in the present collection is an instrument of the guitar family proper, and not a Tamboura, would incline me to think that the names of the Tar and the Sitar should be exchanged, had not the specimens been carefully labelled, as in the Catalogue, by the gentleman through whose kindness they were secured.

clear and pleasing tone. Its frets are fourteen in number, and, like those of the Tar and the Sitar, are formed by little bands of gut passing round the handle. The Tamboura is used in Persia, as elsewhere, to accompany the voice in singing.

The Santir is a popular instrument with the Persians. As we have seen, it formed part of the orchestra described by Ouseley.

The Persian Kamăncha (Kemangeh), or violin (Fig. 4), is of exceptional interest, as it is the ancestor of all the Arabic instruments of the same name. A representative specimen is thus described by Sir William Ouseley: It was made at Shiraz, "of *tut*, or mulberry-tree wood; the body, about eight inches in diameter, globular, except at the upper part, over which was stretched and fixed by glue a covering of parchment. It had three strings of twisted sheep-gut, and a bridge placed obliquely. A straight piece of iron strengthened the whole instrument, from the knob below, through the neck to the hollow which received the three pegs. It was carried hanging from the shoulder by a leathern strap." The total length of the instrument was nearly three feet. "The bow was a mere switch about two feet and a half long, to which was fastened at the end some black horsehair; at the other end, this hair was connected by a brass ring with a piece of leather seven or eight inches long. The ring was managed with the second and third fingers of the performer's right hand; and, by its means, he contracted or relaxed the bow, which was occasionally rubbed on a bit of wax or rosin stuck above the pegs."[1] The specimen in the present collection (Fig. 4) is a ruder variety, found principally among the rural population. The bow is less than two feet long. Though the body of the Kamăncha is usually made of wood, a hollow gourd or the shell of a cocoanut is often used for the purpose, especially in the cheaper instruments. The Kamăncha is often used in Persia to accompany the voice. "Many Persian

[1] Ouseley, quoted by Engel, p. 158.

singers," says Fétis,[1] "prefer the accompaniment of the Kemangeh to that of any other instrument for leading the voice, because its intonation is more easily perceptible and more sustained." It is also frequently used to accompany the dance. In the latter case, "the dancing-girl does not sing the air herself, but it is sung by another woman or by a young boy."

The Rebâb found in Persia resembles that of Algiers and Morocco far more than that of Arabia and Egypt. It is an almost exact counterpart of the rebec, formerly popular in Western Europe.[2]

Fétis mentions also a small two-stringed violin used by the wandering musicians of Central Persia, in which the body is formed by a cocoanut-shell covered with a thin piece of wood.

The wind instruments of Persia do not require special notice. The Nay, or flute; the Zourna, or oboe; the Shaberba (Chabbabeh), or flageolet (Fig. 7), and the bagpipe have all been sufficiently noticed. A rude shepherd's pipe, or fife, is shown in Fig. 6.

Of instruments of percussion, the tambourine is one of the most popular. Several varieties are found, one of the largest of which is the *Kouwal* (Fig. 5). Drums, castanets, and cymbals are also common. A curious hand-drum, called *Dombeg*, is shown in Fig. 8. This is really a kind of Darabukkeh, made of heavy wood, with a head of skin. It is beaten with the flat of the fingers of both hands, and is very popular, being especially used to accompany social dances and singing. Another common drum is the *Dohl*, which is described by Ouseley[3] as a wooden cylinder covered at each end with parchment, one of the heads of which is drawn so tight as to give a tone an octave higher than the other.

[1] ii. p. 407. [2] Engel, p. 310. [3] Quoted by Fétis, ii. p. 410.

II. INSTRUMENTS OF TURKEY.

The Santir and Kanoon are both popular in Turkey. The latter (Fig. 1) is the favorite instrument in the harems of the wealthy classes. It has already been sufficiently described.

Instruments of the Tamboura family are found in Turkey in great variety. Five different kinds are shown in Figs. 3 to 7.[1]

A rude instrument of the guitar family, called *Fellahee*, is shown in Fig. 20. The body consists of an octagonal frame of wood, covered with parchment. The strings — five in number — are of coarse gut.

The Kemangeh of the Turks (Fig. 8) seems to call for special notice. This is not an instrument of the violoncello class, like the Kamăncha of the Persians and the Kemangeh of the Arabs, but an instrument of the violin class, much more nearly resembling in general shape the Rebâb of Persia and of Algiers. It has a shallow body of wood, decreasing in width at the upper end to form the finger-board, and having two sound-holes near the bottom, just below the bridge. The strings are three in number, either all of gut, or, as in the present specimen, two of gut and one of wire. They are attached to three long tuning-pegs of wood or ivory. The total length of the instrument is less than a foot and a half. The same instrument appears in Greece under the name of *Lyra* (Fig. 3). The latter, however, has five strings instead of three.

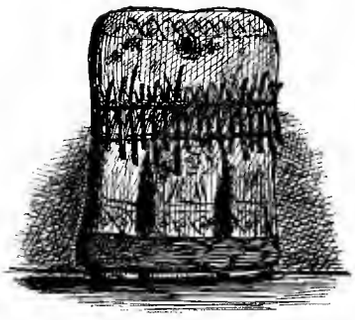
The wind instruments of the Turks are many and various. The most important are the Zourna and the Nay. Many instruments of the flageolet family are also found. (See Figs. 12–18.) The *Ghaïda*, or Turkish bagpipe, is shown in Fig. 9. The Nefyr, or trumpet, has already been described.

[1] Figs. 3 and 4 have each fourteen frets of gut. Fig. 5 has seventeen frets of gut, and seven raised wooden frets upon the body of the instrument. Fig. 6 has twenty-three frets of gut, and ten raised wooden frets. The *Tanbour Kebyr Tourky* has already been described.

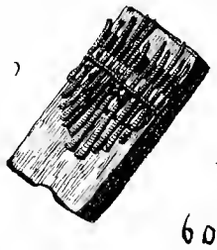
The instruments of percussion of the Turks are those in general use in Mohammedan countries, — drums of various kinds, tambourines, cymbals, and castanets. The *Ge'le'-Masha*, or bell-tongs (Fig. 11), is a kind of cymbal, consisting of a frame of iron furnished with clappers of brass. I have already referred to the character and variety of the instruments of percussion used by the Turks in their military, or Janissary, music.

AFRICA.

1. Zanze, probably from Western Africa. A box of light wood, furnished with 23 iron keys, and surrounded at the base with a leather band.



Evidently an old specimen, as the iron keys are much worn. The body decorated with a rude carving



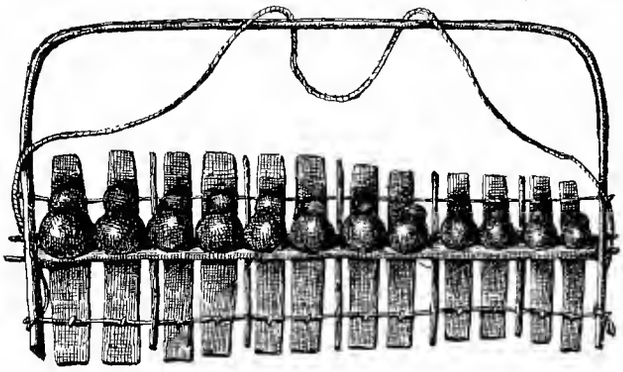
Held with the fingers of both hands, the keys being set in vibration by the thumbs L. 1 ft. W. 8 in.

2. Zanze, smaller specimen.

L. 6½ in. W. 3½ in.

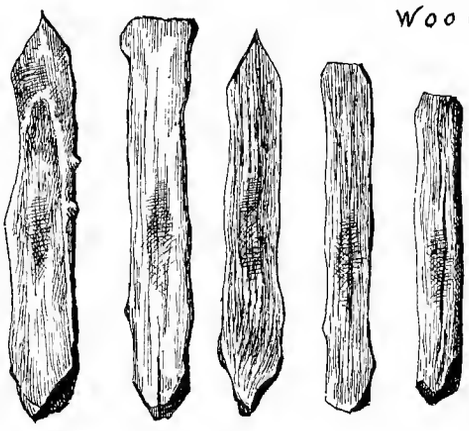
3. Drum, made of pottery, and supposed to be covered with human skin. Rudely painted in red and blue colors. H. 6 in. D of large head 7 in., of small head 4 in.

4. Marimba, called by the natives Mikambi, or Timbila.
From Inhambane, South East coast of Africa

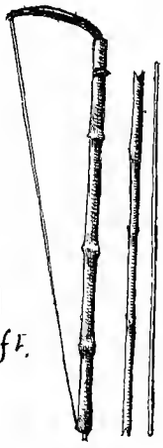


L. 32 in.
W. 19 in.
L. of Keys c. 1 ft.

The under side represented in the drawing, in order to show the gourds, which are used to increase the resonance of the tone. The cord passes round the neck of the performer, who beats the wooden keys with two rubber tipped drumsticks.

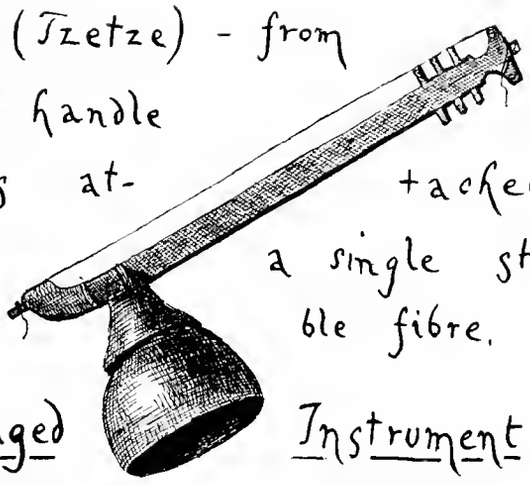


5. Marimba, from Frere Town, Mombasa, East Africa The 5 sticks are placed across two pieces of fresh cut ana wood, laid horizontally on the ground, and struck with the small wooden hammers represented. L. of sticks c. 2 ft.

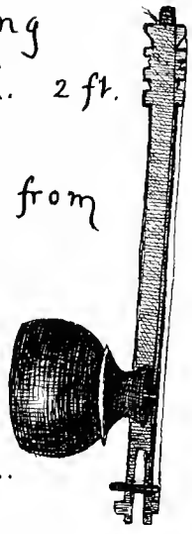


6. Rude Stringed Instrument. Zululand. Played by placing one end of larger loose reed against the string, the other against the body, and striking the string with the smaller reed L. 22 in.

7. Zeze (Tzetze) - from Mombasa, East Africa. A handle of wood, to which is attached a large gourd. Has a single string of vegetable fibre. L. 2 ft. 4 in. D. 8 in.

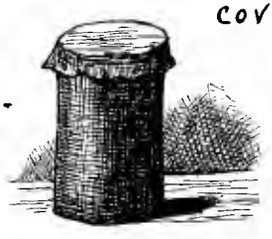


8. Stringed Instrument, from Mombasa. Differs from the Zeze in having two strings, one in front, and one on the side, passing over a bridge of hard quill. L. 2 ft 2 in. D. 7 in

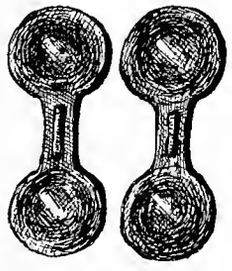


9. Drum Wood, hollowed, and open at the bottom The head of snake skin. H 11 in D. 7 in Mombasa.

10. Drum. Wood, covered with skin H 9½ in. D. 5 in. Mombasa



11. Cymbals. Iron. Used by the negroes of the Soudan, and beaten in accompaniment to their drums. L. 11½ in.



12. Trumpet. Ivory Used by the negroes West coast of Africa The end broken. L. 1 ft. 8 in.

XIV.

SAVAGE MUSIC.

IN the whole history of music, no branch is more interesting and important than that which deals with the first rude beginnings of the art, as found among the savage races which still form so large a proportion of the inhabitants of Africa, South America, and the islands of the sea. In the rude songs and monotonous rhythm of these sons of nature, we may find much that sheds light upon many an otherwise dark page in the history of music. Especially interesting, for the suggestion which it affords, is a study of the savage instruments of music. Beside these earliest attempts of man to turn to the service of melody the inanimate things which he found about him, the rude instruments which we have been considering among the peoples of the East seem finished and perfect.

There is a special reason for directing the immediate attention of the music-loving world to this interesting subject. The study of the savage instruments of music must be undertaken at once, or it will be too late. Already many of these witnesses to the early musical history of man have been destroyed by the advancing march of so-called civilization. The accordion is replacing the *Marimba* in Central Africa. The native instruments of Micronesia and Melanesia have almost entirely disappeared. Dr. Otto Finsch, who was endeavoring to make a collection of the instruments of these islands, on asking a native where he could obtain a specimen of a certain instrument, received the following suggestive answer: "No more *Pagolo; Pagolo* dead—the Jew's harp has

killed him." The same statement holds true in reference to the instruments of our own Indians. They are rapidly disappearing, and in a few years it will be impossible to obtain any more specimens.

This being the case, the savage instruments in the present collection have a special interest, and I need not apologize for devoting to them a somewhat extended consideration. For convenience I have divided them into three groups. First, the instruments of the African tribes; second, the instruments of the North American Indians (including the Eskimos of Alaska on the north, and the natives of Mexico on the south); and, third, the instruments of Central America, South America, and Oceanica.[1] The specimens in the first group, while few in number, are important and representative. The second group contains more than thirty fine specimens. The third, I regret to say, contains only a few relatively unimportant specimens.

Before taking up the special consideration of each of these three groups, some introductory remarks on the general character and history of savage music may not be out of place. The subject, while most interesting, is an intensely difficult one. This is true for two reasons: first, because of the immense amount of ground to be covered; and, second, because of the difficulty of obtaining exact information. The Eskimos of Greenland and of Alaska; the rude natives of Northern Siberia; the Indians of British America and of the United States; the natives of Mexico, Central America, and of the vast and still partially unexplored tracts of South America; the hundreds of tribes of Central and Southern Africa; the degraded natives of Australia, and the more intelligent inhabitants of New Zealand; the natives of the Malay Archipelago; and last, but not least, the dwellers in the thousand islands of the Pacific—all these fall legitimately within the scope of such an inquiry as the present. It is true that we have no lack of

[1] Under this general term I include Australia, New Zealand, Melanesia, Micronesia, and Polynesia.

information, either as to the music or the musical instruments of many of these races. Almost every book of travel contains at least some mention of the musical customs of the people of whom it treats, but much of such information is worthless, either because of its insufficiency or of its inaccuracy. Travellers are too apt to dismiss the subject with some such sentence as the following: "What they call music seems to be very popular among them. Great bands of men, playing on various uncouth instruments, made night hideous to us for weeks."

In the present chapter I shall attempt only to state such broad principles as to the character of savage music, and the general line which it has taken in its development, as may fairly be regarded as established.

The love of music seems to be inborn in man. It is found in the rudest and most savage tribes, no less real and no less intense than in the cultivated inhabitants of Europe. Indeed, I think it may almost be said that a love for music is *more* widely diffused among savage than among civilized men. By this I mean that a greater proportion of individuals in uncivilized countries are affected by what to them is music than of those in civilized countries. Music is a real *power* in the life of the savage. It seems to make little difference where we look. The degraded inhabitants of Western Australia are passionately fond of singing. "To a sulky old native," says George Grey, "his song is what a quid of tobacco is to a sailor. Is he angry, he sings,—is he glad, he sings,—is he hungry, he sings,—if he is full, provided he is not so full as to be in a state of stupor, he sings more lustily than ever."[1] The Fiji Islanders are passionately fond of music and dancing—taking as much delight in their rude conch-shells and Pandean pipes as the cultivated Europeans in the performances of the best orchestra. The orchestral performances of the Dakota Indians of North America last

[1] Grey: Journals of Two Expeditions . . . in North West and Western Australia, ii. p. 299.

for weeks. Nowhere is the love for music so highly developed as in the African negro. It is found among the cannibal tribes no less than in those most advanced in civilization. Schweinfurth has preserved a horrible story of a sight he once saw among the Niam-Niams. A father of a family sat in the door of his hut, playing softly upon the mandolin, while hard by an old woman was preparing a meal of a little child's flesh.[1] The inhabitants of Dahomey, we are told, delight in "singing, dancing, and cutting off heads."[2] The last account of the death of Major Barttelot attributes its immediate cause to his attempting to interfere with the singing and drumming of some Manyemas, by which, as it was carried on both morning and evening, he had been much annoyed.[3] Burton[4] says of the music of the Krumen: "It is monotonous to a degree, yet they delight in it, and often after a long and fatiguing day's march, will ask permission to 'make play,' and dance and sing till midnight. When hoeing the ground, they do it to the sound of music; in fact, everything is cheered with a song. The traveller should never forget to carry a tom-tom, or some similar instrument, which will shorten his journey by a fair quarter." Such examples could be indefinitely multiplied, but these may suffice.

It is doubtless impossible satisfactorily to penetrate the veil of obscurity which hides from our sight the early musical history of man. Go back as far as we may, we cannot find a time when he did not have musical instruments of some kind. Among the relics of the cavemen of France, two bone whistles or flutes have been discovered—carrying back our acquaintance with the music of primitive man to prehistoric times. There is scarcely a savage tribe on the face of the earth to-day which does not possess musical instruments of some description.[5] According to Engel,[6] "there

[1] The Heart of Africa, ii. p. 224. [2] Forbes: Dahomey and the Dahomans, i. p. 19.

[3] *N. Y. Times*, Oct. 18, 1888. [4] West Africa, ii. p. 31.

[5] The only known exceptions are the Veddahs of Ceylon, the Mincopies of the Andamans, and the inhabitants of Tierra del Fuego. (Rowbotham, i. Introduction, p. xiii.) [6] Musical Instruments, p. 1.

exist even at the present day some savage tribes in Australia and South America, who, although they have no more than the five first numerals of their language, and are thereby unable to count the fingers of both hands together, nevertheless possess musical instruments of their own contrivance, with which they accompany their songs and dances."

Although it is impossible to lay down any invariable rule for the development of savage music, we may yet accept with confidence the general lines proposed and ably defended by Mr. Rowbotham in the first volume of his History of Music. According to his ingenious theory, the first instruments to be invented were instruments of percussion; the second, wind instruments, and the last, stringed instruments. Vocal music preceded instrumental, and developed side by side with it. Without following out this theory in detail, it will yet be convenient for me to group what I have to say on the subject of savage music about the four heads thus suggested. I shall consider first the vocal music of savage men; second, their instruments of percussion; third, their wind instruments; and, fourth, their stringed instruments.

I. VOCAL MUSIC.

According to Engel,[1] "The origin of vocal music may be surmised to be coeval with, if not antecedent to, that of language." It is possible to find men who have no musical instruments, but it is impossible to find any man, however degraded, who does not sing. This is true even of the Mincopies, the Veddahs, and the Fuegians, with whom musical instruments are unknown.[2] The origin of song is wrapped in the same impenetrable mystery which conceals the origin of language. At some time man began to sing. That we know, and that is all we know.

If we examine the songs of the savage races of the present

[1] p. 1. [2] Rowbotham, i., p. 71.

day, we shall find that while differing in many respects, they are almost all marked by two characteristic features. The first is a decided prominence of the rhythmic as opposed to the melodic element, and the second is a certain monotony which results from the fact that most of them are contained within a very narrow compass, and have consequently little room for variety. Thus the songs of the Tierra del Fuegians are really chants intoned upon a single note. Similar songs are found among the Fiji Islanders and the North American Indians. The Brazilians have songs entirely composed in two notes, and the same is true of certain tribes of Africa.[1] Examples of songs with three notes are common. Rowbotham[2] gives instances from the Fijians, the Nubians, the Samoans, and the negroes of South America. The Malays, like the Chinese, use the pentatonic scale, and are therefore relatively far advanced in musical development. In general, we may say that the number of distinct tones used by any savage tribe in the construction of their melodies forms a very fair index of the point of musical advancement which they have reached.

The monotonous character of savage melodies has been remarked by many travellers. The songs of the West Australians are described by Grey[3] as being short, "containing generally only one or two ideas, and one constantly repeated over and over again in a manner doubtless grating to the untutored ear of a European, but to one skilled in Australian music, lulling and harmonious in the extreme, and producing much the same effect as the singing of a nurse upon a child." Williams,[4] in referring to the musical performances of the Fiji Islanders, speaks of the song by which the monotonous beating of their drums is accompanied, as being "often very dull." Schweinfurth[5] says of one of the Niam-Niam stringed instruments that "its music is very monotonous, and it is very difficult to distinguish any actual melody

[1] Rowbotham, i. p. 92. [2] pp. 95–97. [3] ii. p. 300. [4] Fiji and the Fijians, p. 141.
[5] ii. p. 30.

in it." Similar testimonies could easily be multiplied. We must, however, be careful not to press our generalization too far. Many of the songs of the negroes of Africa have clearly-marked and not unpleasing melodies. Thus Burton[1] speaks of the natives of East Africa as being "admirable timists, and no mean tunists," and Bowdich[2] says of the Ashantees that "their airs have a sweetness and animation beyond any barbarous composition" he ever heard. The effect of many of the African songs is, moreover, not a little increased by marked variations in the expression with which they are rendered. A good example of such changes of expression is given by Schweinfurth in describing the singing of the Bongo. "It consists," he says, "of a babbling recitative, which at one time suggests the yelping of a dog, and at another the lowing of a cow, whilst it is broken ever and again by the gabbling of a string of words, which are huddled up one into another. The commencement of a measure will always be with a lively air, and every one, without distinction of age or sex, will begin yelling, bellowing and screeching with all their strength; gradually the surging of the voices will tone down, the rapid time moderate, and the song be hushed into a wailing, melancholy strain. Thus it sinks into a very dirge, such as might be chanted at the grave, and might be interpreted as representative of a leaden and a frowning sky, when all at once, without note of warning, there bursts forth the full fury of the negro throats; shrill and thrilling is the outcry, and the contrast is as vivid as sunshine in the midst of rain."[3]

I have spoken of the prominence of the rhythmic element in savage music. This is almost universally recognized by travellers. The sense for time seems to have been highly developed in man long before he had the faintest conception of what we call melody. The rude chants upon a single note of the Fuegians and

[1] Lake Regions of Central Africa, ii. p. 291. [2] Mission from Cape Coast Castle to Ashantee, p. 361.
[3] i. p. 289.

the North American Indians derive a certain life and meaning from their clearly-marked and often-varied rhythm. In the development of this rhythmic sense in man, the dance certainly played an important part. As a matter of fact we find among savage peoples, especially the lowest, an intimate connection between the song and the dance. Many of the most characteristic savage melodies are dance songs. "The wild, painted warrior," says Ambros, "breaks out in song before the battle—gives expression to his contempt for his enemy, his assurance of victory, in words which he chants in improvised fashion, the rhythm of the regular tones compelling his limbs to harmonious movement—swinging his club, he dances his war dance. Here the arts lie in the germ undivided, and only at a higher stage of development do they separate into Poetry, Music and the Drama."[1] Here, of course, we are interested only in tracing the influence of the dance on the history of music proper. This Rowbotham considers to have been very great, not only in the earlier stages of which we have been speaking, when the range was narrow, and its effect was purely rhythmic, but in the later also, when the compass of five or six notes had been reached. "The dance," he says, "has introduced a lot of artificial elements whose tendency would be to gain in complexity every day, and ever more and more to deflect song from that primitive form in which it left the bosom of speech."[2] But an extended consideration of this interesting question would carry us beyond the proper limits of the present chapter.

What was said above as to the fondness of savage man for music in general applies with special force to vocal music. Singing seems to the savage the natural vehicle for the expression of his emotions. If we are to believe George Grey, the old Australian, who sits in the door of his hut, furiously brandish-

[1] Geschichte der Musik, i. p. 537. For an interesting practical example, see George Grey's account of the war-song of an old Australian chief, ii. p. 300 *seq.*

[2] i. p. 118.

ing his spear, and singing of his neighbor, who has insulted him:

"I'll spear his liver,
I'll spear his lights,
I'll spear his heart,
I'll spear his thigh," etc.,

this old native, I say, seems to derive a very real comfort and satisfaction from the performance. Passing to the other extreme, we find among the Niam-Niams minstrels who "are as sparing of their voices as a worn-out *prima donna*."[1] And not only is the song popular as an individual recreation; chorus singing also is common all over Africa. Among the Ashantees, who are relatively highly developed in musical culture, women never perform instrumental music, but both sexes alike join in singing choruses. The dirges of the Ashantee women, we are told, excite them to such a frenzy that their singing becomes little more than a mixture of yells and screeches, bidding defiance to all musical notation,[2] but they are none the less the natural and real expression of the grief of this excitable people. The Bamanwato "dance and sing nearly every night, keeping up their revels till next day."[3] Among the Fiji Islanders "nocturnal serenading is practised by companies of men or women."[4] An original use of the song is described by Cranz.[5] At the time when he wrote his history (1765) the natives of Greenland used to settle their quarrels by a sort of musical duel. "When one Greenlander thinks he has been offended by another," says Cranz, "he does not allow any spite or anger to be detected, still less any spirit of revenge; but he prepares a satirical song, which he repeats over and over in the presence of his household, and especially of the women-folk, dancing as he sings, until they all know it by heart. He then lets it be known in the whole neighborhood that he proposes to sing at

[1] Schweinfurth, i. p. 445.
[2] Bowdich, p. 364 *seq.*
[3] Chapman: Travels in South Africa, i. p. 271.
[4] Williams, p. 140.
[5] Historie von Grönland, p. 231 *seq.*

the expense of his adversary." The neighbors being assembled and the offending party with them, the injured man stands forth in the midst and sings his song, dancing and beating his drum the while, his family joining in the chorus. Each witty personality is received with laughter and applause. His opponent then answers in a song of like kind, and the spectators sit as umpires upon the whole performance. "He who has the last word," concludes Cranz, "has won the case, and from that time on is looked upon as worthy of no little consideration." Further instances of the important part played by the song in savage life will come under consideration in another connection.

II. INSTRUMENTS OF PERCUSSION.

The special instruments of percussion of the different savage races will be noticed in the proper place. I shall confine myself here to a few remarks on the general subject. There is little doubt that instruments of this kind were the first to be invented by man. The natives of West Australia accompany their dances by clapping their hands and stamping their feet upon the ground.[1] The natives of Central Australia beat two pieces of stick together or two green branches.[2] A still nearer approach to the instrument proper is found in the use of their spear-boards by the West Australians. Grey thus describes their performances: "A rounded stick is held in its centre, and its ends alternately struck against the flat board with which they throw their spears. Although this appears so simple," he continues, "it requires some practice, and by young men, who desire the reputation of being *exquisites*, to play it is considered to be a very necessary accomplishment."[3] The step from these rude forms to the finished drum is a long one, and we cannot here trace

[1] Grey, ii. p. 305. The same is true of the Andaman Islanders, who may, therefore, in strictness be removed from the list of those who have no musical instruments. (Rowbotham, i. 22.)

[2] Rowbotham, i. p. 22.

[3] ii. p. 305.

the development through the inverted bowls of the Sandwich Islanders and the hollowed logs of the Fijians[1] to the final form in which the hollow body is covered with a resounding head of skin.

It is a curious fact that many different races attribute to the drum a divine origin, or at least regard it with superstitious awe. "A hundred years ago it could be said that 'the Drum was the only object of worship from the Orinoco to the La Plata.'"[2] Even to-day, drum, or rather rattle-worship, "is to be found in full vitality in the interior of Brazil." The Laplanders have a similar veneration for the drum. "Without his drum," says Rowbotham, "the Lapland sorcerer was powerless, but with it, and by its aid alone, he could do all his wonders. He could project his soul to far distant countries, send it riding through the air or travelling under the earth, while his body lay in a trance in Lapland; he could predict the future, especially could he foretell 'what the success in hunting will be'; 'if a tame reindeer be lost, he can tell how they may get him again'; he could predict whether the net-fishing would be successful, or even if a sick man would recover."[3] The legends of the North American Indians carry back the drum to the time of the Deluge. The Greenlanders use it to conjure up spirits, the Samoyedes to drive them away.[4] In view of these facts, it is only natural to find that one of the chief uses to which the drum is put among the savages of the Western world, is to assist the mysterious rites of the sorcerers and medicine men. But even among the Indians and the Laplanders, it is by no means confined to such uses. It is employed to accompany singing and the dance, and is an important part of whatever orchestral performances may take place.

It is wonderful what an effect the sound of the drum has upon the savage, and what meaning he is able to put into its monoto-

[1] Rowbotham, i. p. 24. [2] Rowbotham, i. p. 7. [3] i. p. 11.
[4] Cranz: Historie von Grönland, p. 271; Rowbotham, i. p. 15.

nous tone. It animates the warrior to deeds of bravery, and enables the lover to express the depth of his emotion. The Eskimos use the drum to give expression to their passions.[1] The Manganjas of Africa employ it "to express their joy and grief."[2] "In the Marquesas we read of mammoth drums fifteen feet in height, whose sound resembles thunder, and with two rows of these playing in their midst from morning till night, the people will lie feasting under the trees for days together."[3] The American brave believes he can show his affection by the force of his beating. "Hear my drum," he cries to his absent love, "though you be at the uttermost part of the earth, hear my drum." And again, "Do you *understand* what my drum says?"[4]

It would be interesting to trace the growth of the different instruments of percussion; to follow the development of the rattle, the bell, the cymbals, and the harmonicon, as evidenced by the various specimens, more or less rude, which are found among different savage races to-day. But such an undertaking will carry us too far. I will therefore confine myself to but a single illustration. Perhaps no better example could be taken of the gradual growth of the conception of a musical instrument than that of the harmonicon or xylophone. One of the crudest forms of this is to be found in the *Angremut* of the inhabitants of New Britain. This consists of two pieces of wood, dried by artificial means, and hardened by being held in the fire as long as possible. They are of unequal size, the larger being burnt on one side only, and the other on both. They are slightly curved in shape. The manner of playing the Angremut is thus described by M. Kraus: "The islanders of New Britain," he says, "dig in the sand during the night a trench which is longer than it is wide, and pointed at both extremities. One of them then seats himself across this trench, and the two Angremuts are placed across it

[1] Rowbotham, i. p. 30. [2] Livingstone, quoted by Rowbotham, i. p. 30. [3] Rowbotham, i. p. 141.
[4] Schoolcraft, quoted by Rowbotham, i. p. 31.

symmetrically, and struck [with two little rounded sticks], thus producing sounds, which, if we may believe the account of travellers who have visited these islands, are anything but agreeable."[1] Strangely enough a halo of mystery surrounds this somewhat simple contrivance. Women are never allowed to see the Angremut. It is only played in the dead of night, and the specimens sold to Dr. Finsch for the museum at Florence were brought to him at night "carefully enveloped in leaves, so that the women might not see them."[2] A somewhat similar form of the instrument is found among some of the natives of East Africa. Fig. 5, in the present collection, is a very interesting specimen of this kind. It consists of five rude pieces of wood, flattened on the top, which are placed across two pieces of fresh-cut banana wood, laid side by side upon the ground. They are beaten with two short wooden drumsticks. In this instrument, as in the Angremut of New Britain, we see the first crude attempts to increase the simple sound of the wood by the support of some kind of resonant body. The further development of this idea is shown in two more finished specimens in the Catalogue (Fig. 4, Africa, and Fig. 2, Central America). In the first of these the resonant bodies are supplied by gourds, two of which are fastened, by a resinous substance, under each of the twelve flat wooden keys of the instrument. The whole is surrounded by a frame of wood, and is suspended at the performer's waist by a cord passing round his neck. In the Guatemalan specimen, the resonant bodies are supplied by pieces of hollow wood. The number of keys in this instrument is much greater than in the preceding, being no less

[1] Kraus: Musical Instruments of Micronesia and Melanesia. This treatise is in Italian. As I have access only to a manuscript translation, I am unable to give a more definite reference.

[2] Ibid. A similar mystery surrounds the *Juruparis*, or wooden trumpet of the Brazilian Indians. "Women are never permitted to see it. So stringent is this law that any woman obtaining a sight of it is put to death—usually by poison. No youths are allowed to see it, until they have been subjected to a series of initiatory fastings and scourgings. The *Juruparis* is usually kept hidden in the bed of some stream, deep in the forest; and no one dares to drink out of that sanctified stream, or to bathe in its water. At feasts the *Juruparis* is brought out during the night, and is blown outside the houses of entertainment." Engel, p. 72.

than twenty-eight. The whole rests upon a large frame of wood, and is beaten with rubber-tipped drumsticks, sometimes as many as three persons performing at the same time.

III. WIND INSTRUMENTS.

Wind instruments imply a stage of development more advanced than that which is satisfied simply with instruments of percussion. The question how the idea of their use first originated, while an interesting one, need not concern us here. We shall content ourselves with certain general observations as to the nature and the use of the wind instruments found at present among savage peoples. These may be divided into two great classes—the horn class and the pipe class. The question which was the earliest is still an open one, but I am inclined to follow Mr. Rowbotham in assigning the first place to the horns. The most simple instrument of this kind, and the one from which all the others may well have been developed, is the conch-shell. This is found to-day among savage peoples all over the world, especially in the islands of the Pacific. In Africa we find the negroes using trumpets of horn or ivory. Instruments of wood are also common. The Indians who live along the banks of the Orinoco have wooden trumpets nearly seven feet long.[1] The use of instruments of this class seems to be confined to warlike purposes. The savages who from time to time attacked Orellana on his expedition down the Maranon, "almost invariably preluded their onset by a tremendous din of horns and trumpets. The Muras, who were the scourge of the colonists in South America, would always perform a wild overture on horns before commencing their attack. The people of the Orinoco used horns for a similar purpose. The Samoans blow conch-shells as a prelude to the war. The savages of Guiana commence their

[1] Engel, p. 72.

attacks with a screech of horns and trumpets."[1] The effect produced by some of these wild war-horns is really frightful. Ellis says of the conch-shells of the Samoans that their sound is the most "horrific" he has ever heard.[2]

When we turn to the instruments of the pipe family, we find a marked contrast. If the horn is pre-eminently the instrument of war, the flute is, *par excellence*, the instrument of love. Rowbotham has gathered a most formidable collection of testimonies which go to prove that Shakespeare's "lascivious piping of the flute" was no idle term.[3] I will quote but one of them. "'In the island of Formosa,' says an old Dutch voyager, 'they do not buy their wives with moneys; and the fathers and mothers are in nowise consulted. But the young man appeareth for many days before the hut of his sweetheart, and playeth on a flute or little pipe, till she hath given her consent to espouse him, or told him he may depart for she will have none of him.'"[4] A similar custom obtains among many tribes of the North American Indians.

The history of the flute is an interesting one, from the simple reed with its single note, through such intermediate stages as the rude pipe found among the Ashantees of Africa, which has three holes, and the flute of the Apache Indians (Fig. 15, North America), which has four, to such a finished instrument as the love flute of the Dakotas (Fig. 10, North America). We have seen, in the case of China, how long a time passed before even the first step in this development was taken, and the Chinaman learned that by cutting a single bamboo it might be made to produce more than one note. In like manner the savage, when he wished to produce more than one tone, cut two or three different reeds and placed them side by side. In this way must be explained the origin of the Syrinx, or Pandean pipe. This is one of the most common of savage instruments. It is found both in South America and

[1] Rowbotham, i. p. 37. [2] Quoted by Rowbotham, i. p. 39. [3] See p. 47 *seq*. [4] Rowbotham, i. p. 47.

among the inhabitants of Polynesia. The length of the reeds of which it is composed varies from a few inches to four or five feet. A study of some of these syrinxes goes to confirm what has already been said about the narrow compass of early savage melodies. Fétis[1] gives an example of a Polynesian syrinx of nine pipes, in which the range extends only from B♭ to F, —the exact order of notes being as follows : F, D, C, B♭, C, E♭, D, B♭, D. The examples given by Rowbotham[2] have, however, a considerably wider range. "One of these syrinxes," says this writer, "is to us as good as a piece of savage music noted down by the savage himself, and by examining the melody which is made by blowing it from end to end, we can see clearly enough what sort of melodic ideal floated in the head of the man who made it."[3]

The interesting question of the origin of the nose-flute will be touched upon in another connection.

IV. STRINGED INSTRUMENTS.

With stringed instruments we reach the last and highest stage in the history of musical instruments. The first rude beginnings of this kind found among savage races are therefore of exceptional interest. Many theories have been advanced to account for the invention of the first stringed instruments, but none of them are thoroughly satisfactory. Rowbotham[4] believes that they first came into use as instruments of accompaniment, and as a matter of fact we find them used chiefly by those peoples among whom the chant or song is most highly developed. With the invention of the strings begins the period of "real musical culture." Through hearing melodies played upon the instrument, the discovery was made that this alone, even without the voice, was able to satisfy man's innate longing for music. "And

[1] i. p. 17. [2] i. p. 58. [3] i. p. 57. [4] i. p. 161.

so instrumental music branches off from vocal music, and music first fully separates itself from poetry."[1]

In its primitive form the stringed instrument is nothing but "a string or two stretched over a board or a stick."[2] Thus the Fijians, we are told, have "a little Jew's harp which they twang with their fingers."[3] Out of this rude form were developed alike the Kin of China, the Vina of Hindustan, the Lute of Persia, and the Harp of Egypt. But here again, as in the case of the flute, the road from the first rude beginning to the finished instrument is a long one. And just as among wind instruments the syrinx, in which each reed gives a distinct tone, preceded the flute, in which a number of tones are produced by a single reed, so in the first stringed instruments each string probably gave but a single note, and it was only later that man hit upon the idea of increasing the number of notes produced by a single string by the stopping of frets.[4] An interesting instance, showing how strong, even among comparatively advanced tribes, is the association between the individual string and the single tone which it is supposed to produce, is given by Bowdich in describing the *Sanko* of the Ashantees. This is "a narrow box, the open top of which is covered with alligator or antelope skin. A bridge is raised on this, over which eight strings [of vegetable fibre] are conducted to the end of a long stick fastened to the forepart of the box, and thickly notched,"[5] and the strings are raised or depressed into these notches as occasion requires. The strings are tuned quite at

[1] Ambros, i. p. 540. [2] Rowbotham, i. p. 161. [3] Williams, quoted by Rowbotham, i. p. 143.

[4] "The stopping of the Lute's strings," says Rowbotham (i. p. 165), "was found out as soon as the Lute got a neck, for in the primitive form of a piece of straight board with strings lying over it, there was no likelihood that the art of stopping would be discovered, but the instrument would be played as we should play an Æolian harp nowadays (which indeed it very much resembled), or as the Chinese play their Lute [the Kin] at the present day, resting on the knee, or on some artificial support, or perhaps on the left arm, while the thumb of the right hand steadied it underneath, and the four fingers twanged the strings. But when, for convenience of holding, one end of the instrument was made narrower, so as to be grasped by the left hand, directly, I say, the left hand went round the strings, it could not help pressing them sometimes as it held them, and the difference of tone which the pressure caused would be at once noticed, and in course of time would be acted on. And this was how the Lute's strings got to be stopped."

[5] p. 361.

random. On one occasion, out of curiosity, Bowdich changed the tuning of some of the strings of the Sanko, and then called the attention of the player to the fact that they now gave a different tone. But the mind of the native seemed to be quite unable to grasp the idea. "I put the same string," he said; "it must be the same tune."[1] Yet although in strictness, instruments the strings of which produced only a single tone must have preceded those in which the number of tones of each string could be increased by stopping, we find examples of the latter even among people of comparatively low development. The Bechuanas, says Chapman, have "a musical bow with a hollow calabash attached to one end, on which is stretched a twisted string made of sinews, on which the performer strikes with a thin stick, *modifying the tones with his fingers by running them along the string*." "This is a selfish kind of music," he continues, "intended more for their own gratification than for that of an audience, who can scarcely hear anything of it, while the performer, having the one end of the bow constantly between his teeth, the sounds vibrate powerfully to his own ears, and are lost on the bystanders."[2] The same instrument is found among the Bushmen. A modification of the idea is found among the Bongo. "This consists of a bow of bamboo, with the string tightly strained across it, and this is struck by a slender slip of split bamboo."[3] As in the Bechuana instrument, one end of the bow is held in the teeth. The resonant gourd, however, is wanting. "Performers may often be seen sitting for an hour together with an instrument of this sort: they stick one end of the bow into the ground, and fasten the string over a cavity covered with bark, which opens into an aperture for the

[1] p. 361. The example, to be sure, does not quite cover the case. The idea that without altering the length of a string it may be made to yield different tones by increasing or diminishing its *tension* is quite distinct from the idea that different tones may be obtained from the same string by increasing or diminishing its *length*. The latter principle the Ashantees seem already to have grasped. Yet the story is instructive as showing us how the mind of savage man works on such questions.

[2] i. p. 271.

[3] Schweinfurth, i. p. 287.

escape of the sound. They pass one hand from one part of the bow to the other, and with the other they play upon the string with the bamboo twig, and produce a considerable variety of buzzing and humming airs, which are really rather pretty."[1] The principle of stopping reaches its full development in the Zeze or banjo (Fig. 4, Africa), which will be described later.

It does not fall within the scope of the present chapter to follow the ingenious theory of Mr. Rowbotham as to the development of the different forms of the stringed instrument. After showing how savage man constructed the first rude lute, and how out of that was developed the Lyre, he goes on to show how "they each gave birth to a firstborn; and the Lute gave birth to the Harp, and the Lyre to the Dulcimer; or, in other words, the Lute got its increase in power by increasing the size and tension of the strings themselves, the Lyre got it by increasing the force with which they were struck."[2] The theory is interesting, but after all only tentative, and to be accepted with caution. In the early history of music, as in other branches of the history of primitive civilization, we find many facts that seem conflicting and hard to reconcile. A study of the savage musical instruments sheds light on many otherwise obscure points, but it leaves the darkness which covers others all the more impenetrable. For the present, at least, we must be content to leave much unexplained. I cannot better close this chapter than by calling attention to but one of the many seeming contradictions which meet us in this interesting but baffling field.

We are accustomed to think of harmony as peculiarly the characteristic of modern European music. Even to the most highly civilized nations of the East, it seems to be practically unknown. Not only does the matter-of-fact Chinaman, and the

[1] Schweinfurth, i. p. 287. "This," he continues, "is quite a common pastime with the lads who are put in charge of the goats. I have seen them apply themselves very earnestly and with obvious interest to their musical practice, and the ingenious use to which they apply the simplest means for obtaining harmonious tones testifies to their penetration into the secrets of the theory of sound."

[2] i. p. 164.

practical Japanese care nothing for it, but even the imaginative Hindu contents himself with the delights of pure melody. The Arabs themselves, who have carried the development of the strings to a point of perfection higher than that found among any other extra-European nation, while acquainted with some of the principles of harmony, regard it, as we have seen, rather as a "disturbing element." In view of these facts, we should surely expect to find in the music of savage peoples examples of melody only. Yet while this is true as a rule, we are confronted by a number of interesting and puzzling exceptions. Thus the Ashantees produce thirds, and even, occasionally, fifths, on their rude flutes.[1] "The harmonies which they [the Niam-Niams] elicit from their favorite instrument, the mandolin, seem almost to thrill through the chords of their inmost nature."[2] But the most interesting case is that of the New Zealanders. Here "for unknown ages a combination of simple thirds in a short vocal strain has been known"[3]—a fact which may indeed illustrate, as Mr. Elson phrases it, "the force of accident in the rise of music," but which I prefer to recognize as the first faint utterings of that higher sense in man, which, after lying dormant in the human constitution for centuries, has at last voiced itself in the wonderful harmonies of a Beethoven and a Wagner.

[1] Bowdich, p. 361.

[2] Schweinfurth, ii. p. 29.

[3] Elson: Curiosities of Music, p. 233; Ambros, i. p. 545. Still other examples of savage harmony are given by Rowbotham, i. pp. 168, 169.

XV.

INSTRUMENTS OF THE AFRICAN TRIBES.

THE remarks which have already been made as to the fondness of savage man for music apply with special force to the African negro. Not only does this love characterize him in his native land and among his own people, but he carries it with him wherever he goes. The negroes of our own Southern States are a case in point. Some one has ventured the prediction that at some future time, when the African race shall have attained a stage of civilization not inferior to that of the European nations, they will become "the most universally and thoroughly musical race on the face of the globe."

But whatever may take place in the future, we must be content to-day to study these musical capabilities in the germ. Compared with the savages of the Western world, the negroes are relatively far advanced in musical development. Many of their melodies are clearly marked and pleasing.[1] Passionately fond of singing and the dance, says Ambros,[2] they have the faculty of striking up jolly dance-songs, which, following the natural intervals of their horns and trumpets, bring out with marked emphasis the significance of the tonic triad as well as of the dominant. The first beginnings of harmony among the Ashantees have already been noticed.

When we turn to consider the musical instruments of the

[1] Note especially the examples given by Ambros, i. p. 546. [2] Ibid.

African tribes, we find that almost all of them possess at least some form of the stringed instrument. Now, the stringed instrument, as we have seen, indicates a relatively high stage of musical advancement. Yet here we find it among a people who are still pure savages. This presents an interesting problem for the musical historian. Mr. Rowbotham tells us that he undertook to make a catalogue of the different African tribes, with a view to discover "whether the absence of stringed instruments prevailed in the centre, the north, or in what direction it might be, of the continent. It seemed to me," he says,[1] "from the tale this catalogue told, that the tribes in the lowest state of musical development—that is, those who have not yet acquired the use of stringed instruments—were principally in the East of the continent, and the East of the Central part of it. But this tabulation I was obliged to discard, owing to the conflicting accounts of travellers." The problem is still further complicated by the fact that some tribes who possess stringed instruments seem to be entirely unacquainted with wind instruments. In view of these facts, the ingenious theory has been advanced by Mr. Rowbotham, that as "the art of smelting metals was passed down from the ancient Egyptians through the negroes on their borders, and from thence spread through the whole continent of Africa," so in like manner the negroes derived their acquaintance with stringed instruments from the Egyptians.[2] Nor is this theory by any means without the support of facts. The African harps are remarkably like those of ancient Egypt in shape. Especially striking is the evidence of the *Nanga* of the Soudan. This instrument, which is "a peculiar cross between the lute and the harp," is an exact copy of one of the most characteristic of the Egyptian instruments. Nor are the points of resemblance confined to stringed instruments alone. "The negroes of the Soudan call their drums by the same

[1] Appendix A, i. p. 185.

[2] i. p. 186.

name as the ancient Egyptians, *Daluka*, and the drums are precisely identical."[1] In further confirmation of his theory that the stringed instrument has been "prematurely" introduced among the negroes, Mr. Rowbotham cites the use to which it is put by most of them. "For it is generally used as a mere idle instrument, and often fitted with keys of iron, or struck with rods like a dulcimer, and has pieces of shells and tin hung to it, to make a jingling accompaniment. It serves the same office which the pipe does among other savages—to accompany the dance or to amuse the ear; but as to being an instrument for poets, as to being the companion of bards and minstrels, we do not find any such fate has befallen the Lyre of Africa. So we prefer to consider it a premature importation from civilized neighbors, which has not taken root and flourished, because the new possessors were not prepared to receive it."[2]

Examples of similar transfers of musical instruments from people in one stage of civilization to those in a lower are very common in musical history. An interesting case in point is that of the nose-flute, the use of which was probably carried from India, its original home, through Siam to Borneo; thence "across to Fiji, the Society, Friendly and Hervey groups, and down to New Zealand, while it has even been met with in North Australia, where it had probably been brought by Malay trading canoes from the other islands."[3] Not to refer to the many cases of similar transfers which have already been touched upon in the history of Eastern musical instruments, we may find a number of interesting examples within Africa itself. Thus Burton[4] speaks of the instruments of the natives of the Lake regions of Central Africa, as being "all of foreign invention, imported from various regions, Madagascar and the coast."

[1] Rowbotham, i. p. 187, where other instances also are given. The resemblance between the Mittoo lyre and the Nubian Kissar will be noticed later.

[2] Ibid.

[3] E. B. Tylor, *Macmillan's Magazine*, May, 1882, p. 81.

[4] Lake Regions of Central Africa, ii. p. 291.

The general statement of Mr. Rowbotham as to the use of the lyre in Africa, while doubtless true in the main, must be corrected by several very interesting exceptions. Thus the Niam-Niams of the Soudan have a class of professional bards or minstrels, called *Nzangah*, who use a combination of harp and mandolin, "the thin jingling of which accords perfectly well with the nasal humming of the minstrel's recitative."[1] Nor are such bards found among the Niam-Niams alone. "Under minor differences of aspect, these men may be found nearly everywhere in Africa."[2] Unlike the bards of the Northern nations, they are looked upon with contempt by their hearers, as the name *Hashash* (buffoon), applied to them by the Arabs of the Soudan, well indicates.[3]

In taking up the special consideration of the African instruments, we shall find it convenient to follow an order the reverse of that employed in considering the instruments of the Eastern nations. I shall, therefore, first give some account of the instruments of percussion of the negroes; second, of their wind instruments, and, last of all, of their stringed instruments.

I. INSTRUMENTS OF PERCUSSION.

In approaching the subject of the African instruments of percussion, we are embarrassed by the richness of the material. A full catalogue would embrace almost every kind of resonant contrivance that the brain of man can conceive. The Ashantees, says Bowdich,[4] use in their music "drums, castanets, gong-gongs, flat sticks, rattles, and even old brass pans." The Wajiji, an East African tribe, have a rude tom-tom made of "a pair of foolscap-shaped plates of thin iron, joined at the apices and connected at the bases by a solid cross-bar of the same metal."[5]

[1] Schweinfurth, Heart of Africa, i. p. 446. [2] Ibid., ii p. 30.

[3] The Niam-Niam *Nzangah*, signifying prostitute, is still more expressive.

[4] Mission from Cape Coast Castle to Ashantee, p. 363. [5] Burton, Lake Regions, etc., ii. p. 98.

Upon this they beat with a muffled stick "with painful perseverance." The Niam-Niams have an instrument which has been described by Colonel Long as "a Sinon-like wooden horse, that was beaten on its sides with drumsticks."[1] The inhabitants of Dahomey ornament their drums with skulls. In the great procession of the King's Wealth, which Forbes witnessed in 1850, there passed "twenty men carrying the royal drums, one ornamented with twenty human skulls," "six men carrying a drum, ornamented with twelve human skulls," etc.[2] In another similar procession, the same traveller saw thirty women carrying a single drum ornamented with twenty-four skulls.[3] Fig. 3, in the present collection, shows a pottery drum, the head of which is said to be covered with human skin. Sir Samuel Baker was once quartered near the town of Masindi, where dwelt Kabba Rega, King of the Unyori. One evening, after a somewhat unusual stillness, he was startled by "the deep tones of a *nogara* or drum. This ceased in a moment; and then came a burst of terrific noise, which caused every man in camp to rush to his post. It was a din, caused by many thousands yelling and shrieking like maniacs. At least a thousand drums were beating; horns, whistles and every instrument which could add to the confusion was blowing and sounding, yet no human being was visible."[4] Upon being informed by the dragoman that the purpose of this terrific commotion was to "*make him afraid*," Sir Samuel ordered his own regimental band to strike up their loudest—a proceeding which had the happy result of causing the horrible din to cease. These examples, which might be indefinitely multiplied, sufficiently illustrate the variety, both in character and in use, of the African instruments of percussion. A few of the more important kinds, however, call for special description.

"The drum," says Burton,[5] "is ever the favorite instrument

[1] Long, Central Africa, p. 278.
[2] Dahomey and the Dahomans, ii p. 217.
[3] ii. p. 237.
[4] Elson, p. 276.
[5] Lake Regions, etc., ii. p. 294.

with the African, who uses it as the alarum of war, the promise of mirth, the token of hospitality, and the cure of disease: without drumming life would indeed be a blank." The largest of the African drums is called *Ngoma Ku*. It is described as "the hollowed hole of a *mkenga*, or other soft tree, with a cylindrical solid projection from the bottom, which holds it upright when planted in the ground. The instrument is from three to five feet in length, with a diameter of from one to two feet; the outside is protected with a net-work of strong cord. Over the head is stretched a rough parchment made of calf's skin, and a cap of green hide, mounted when loose, and afterwards shrunken by exposure to fire, protects the bottom. It is vigorously beaten with the fist, and sometimes with coarse sticks."[1] The Niam-Niams and Monbuttoo of the Soudan have large signal drums of somewhat similar shape. "They stand sometimes upon four and sometimes upon two feet, and are like the instruments which are seen upon the West Coast."[2] One of these drums is probably referred to in the "Sinon-like wooden horse" mentioned above. Many smaller wooden drums are also found. Some are "shaped like an hour-glass or a double 'darabukkah,' and provided with a head of iguana skin."[3] Schweinfurth[4] describes one of the Monbuttoo drums as being "of a semicircular shape, very compressed and fitted with a handle at the top; the opening for the sound is below, and the instrument may be compared to a flattened bell." Two forms of drum very common on the East Coast are shown in Figs. 9 and 10.

I have already referred to the drums of the Ashantees. These are usually made of the hollowed trunk of a tree, open at one end and covered with skin on the other. They are of two sizes. The largest are borne on the head of a man, and struck

[1] Burton, ii. p. 295. Drums of this kind are found among the Bongo. (See Schweinfurth, i. p. 288.)
[2] Schweinfurth, ii. p. 113. [3] Burton, ii. p. 295. [4] ii. p. 113.

by one or more followers; the smaller are strung round the neck or rest on the ground. The former are beaten with sticks, shaped like a "crochet rest"; the latter are played with the fingers.[1] The most highly esteemed of the Ashantee drums are covered with leopard skin, and played, like a tambourine, with two fingers.

The Bushmen use, to accompany their dances, a peculiar water-drum, which is "merely a wooden bowl into which a little water has been poured, and over which a skin is tightly drawn."[2]

The *Sanje*, or rattle, is found among many African tribes. It usually consists of a gourd filled with pebbles. It is used chiefly by women and children, and by the *Mganga*, or rain-maker.[3] At the great festivals of the Bongo, says Schweinfurth,[4] "women and children by the hundred fill gourd-flasks with little stones, and rattle them away as if they were churning butter; or again at other times they will get some sticks or dry fagots and strike them together with the greatest energy." In some cases hollow gourds are used as drums, and beaten with sticks.[5] The negroes of the Soudan have a kind of cymbals (Fig. 11), consisting of two thin plates of iron, with leather handles, which they use to accompany the beating of their heavy drums. I have already referred to the fact that the Ashantees use brass pots as instruments of percussion.

Two of the most important of the African instruments of percussion still remain to be noticed. The first of these is the *Marimba;* the second the *Zanze*. The Marimba, which is also called *Mihambi*,

[1] Bowdich, p. 363.

[2] Elson, p. 256. This drum "is struck regularly in time with the movements of the dancer; the latter, when partially exhausted, falls upon the floor, but still singing and kicking in time with the music; after a short rest of this description, he jumps up and continues as at first. When utterly exhausted, he retires among the spectators, and, unfastening his leg rattles, hands them to the next dancer. The music to this odd performance is *not* in unison. The dancer sings one air, the spectators another, and the drum gives a species of 'ground bass' to the whole." This, therefore, is another interesting instance where an acquaintance with harmony is found among a people in all other respects most degraded.

[3] Burton, ii. p. 295. [4] i. p. 288. [5] Burton, ii. p. 295.

Timbila, or *Balafo*, according to the part of the country in which it is found, is one of the commonest of African instruments. Its ruder forms have been sufficiently described in the previous chapter. A representative specimen of this kind, from the East Coast of Africa, is shown in Fig. 5. The perfected Marimba is thus described by Engel:[1] It has twelve keys, made of "slabs of sonorous wood, beneath which are fastened, by means of a dark-colored cement, twelve gourds, to increase the sound. In each gourd are two holes, one of which is at the top, and the other at the side. The latter is covered with a delicate film, to promote the sonorousness. Several African travellers have noticed this curious acoustic contrivance. Du Chaillu says that the film consists of the skin of a spider; Livingstone mentions spider's web being applied to instruments of this kind, used by certain native tribes in Southern Africa." The Marimba is a favorite instrument, both of the negroes and of the Kaffres. A fine specimen is shown in Fig. 4. In this, however, the resonant body, instead of being furnished by a single gourd under each key, consists of two, a larger and a smaller, which are fastened together with resin, so as to form the shape of a figure eight. As has already been said, the instrument is suspended at the waist by a cord passing round the neck, and is beaten by two rubber-tipped drumsticks.

The Zanze (Figs. 1 and 2) consists of a hollow wooden box, the top of which is furnished with a number of iron tongues, which are set in vibration by the thumbs of the player. In the first of these specimens, the keys are twenty-three in number; in the second, only eleven. Both pass over a low iron bridge, which raises them from the wooden surface, and causes them to vibrate clearly. Instruments of this kind are common all over Africa. The Zanze proper is found among the negro tribes of upper and lower Guinea. "Similar instruments are the *Kassangah* of Delagoa Bay and the neighboring district, Southeastern Africa; the

[1] p. 156.

Ibeka of the Balakai, a negro tribe in Western Africa, near the Gaboon River; the *Ambira*, popular at Mozambique, East Africa; the *Vissandschi*, at Congo and Benguela, and others."[1] In some of these the tongues are made of iron; in others of hard wood. In several of them they are so inserted as to allow of their being pushed deeper into the wood, or drawn out to a greater length, at pleasure. Engel suggests that this may be "an expedient for the purpose of tuning them in conformity with any particular melody which the performer wishes to play, and which, as the negro melodies are generally very short, he may produce by means of the tongues thus arranged, if he vibrates them in succession, meanwhile observing the rhythm of the melody."[2] Among the Banabea, the body of the instrument consists of a flat piece of wood placed inside of a large gourd, which acts as a sounding-board.[3] The *Oompoochwa* of the Ashantees, described by Bowdich,[4] seems to be a sort of rude Zanze with five wooden keys.

II. WIND INSTRUMENTS.

The wind instruments of the negroes are not nearly as numerous or important as their instruments of percussion. As we have already seen, there are not a few tribes which have no wind instruments at all. Those which are found are chiefly flutes, whistles, horns, and trumpets.

The *D'hete* or *Kidete*, used by many tribes of the interior, is described by Burton[5] as "a hollowed holcus-cane, pierced with four holes at the further end; the mouth-piece is not stopped in any way, and the instrument is played upon solely by the lips, a drone being sometimes supplied by the voice." The reed flute of the Ashantees, with three holes, has been more than once referred to. The Karague, a tribe of Central Africa, have a kind of flageolet, beside certain "reed instruments made in telescopic fashion."[6]

[1] Engel, p. 297. [2] Ibid. [3] Chapman, i. p. 272. [4] p. 363. [5] ii. p. 293. [6] Elson, p. 262.

The Bechuanas also have reeds "with which they make a very monotonous and discordant noise at their moonlight dances."[1] The Mittoo are many of them quite skilful players of the flute, and have been described by Nubian travellers as "equal to the best Frankish (European) performers who reside in Cairo."[2] The Kaffres have a rude flute or flageolet, but their favorite instrument is an "ear-piercing whistle," with but a single note.[3] Among the Bongo "the youngsters, down to the small boys, are all musicians. Without much trouble and with the most meagre materials, they contrive to make little flutes."[4]

The Bongo have also some large trumpets called *Manyinyee*. These are huge wooden tubes varying in length from four to five feet, "closed at the extremity, and ornamented with carved work representing a man's head, which not unfrequently is adorned with a couple of horns. The other end of the stem is open, and in an upper compartment towards the figure of the head is the orifice into which the performer blows with all his might. There is another form of Manyinyee which is made like a huge wine-bottle; in order to play upon it the musician takes it between his knees, like a violoncello, and when the build of the instrument is too cumbrous, he has to bend over it, as it lies on the ground."[5] The Mittoo substitute for the wooden trumpet of the Bongo, a long gourd flask with holes in the side.[6] The people of the East Coast have a "huge bassoon of black wood," called *Siwa*.[7]

One of the most important of the negro instruments is the horn. This is made either of horn or of ivory, and is of several kinds. "The *Barghumi* is made by cutting an oblong hole, about the size of a man's nail, within two or three inches of the tip of a koodoo, an oryx, or a goat's horn, which for effect and appearance is sometimes capped with a bit of cane, whence projects a long zebra's or giraffe's tail."[8] By altering the force of the

[1] Chapman, i. p. 271. [2] Elson, p. 268. [3] Elson, pp. 253, 255. [4] Schweinfurth, i. p. 287.
[5] Schweinfurth, i. p. 288. [6] Ibid., p. 412. [7] Burton, ii. p. 293. [8] Burton, ii. p. 294.

breath, it may be made to yield four or five notes. Its tone is not unlike that of a French hunting-horn. The Ashantees have a similar horn made of ivory[1] (see Fig. 12). The Bongo have a number of signal-horns made of the horns of different antelopes. "These are called *Mangoal*, and have three holes like small flutes, and in tone are not unlike fifes."[2] They have also a long, narrow wooden pipe, called *Mburrah*, "which has a widened air-chamber close to the mouth-piece, very similar to the ivory signal-horns which are frequently to be seen in all the negro countries."[3]

The King of the Monbuttoo is said to have horn-men "who can modulate their tones from infinite tenderness to the sound of a lion's roar; and can perform upon a horn so cumbrous that it can scarcely be held passages of runs, trills and shakes which would be difficult upon a flute."[4]

A curious wind instrument is described by Burton.[5] This consists of "a gourd a few inches in circumference, drilled with many little apertures; the breath passes through one hole, and certain notes are produced by stopping others with the fingers." It yields "loud, shrill, ear-piercing quavers," somewhat resembling those of the European piccolo. Another curious instrument is the *Goura* of the Bushmen. This is shaped like a bow, but has a piece of quill inserted at one end of the string. This quill is blown in the same manner as an ordinary Jew's harp. A modified form of the same instrument, called *Joum-joum*, is used by the women. This, however, is not played by the breath, but struck by a stick, the performer catching it up quickly and putting it to her ear in order to catch the vibrations.[6]

The negroes of the Congo have a kind of rude bagpipe, with a shrill and piercing tone.[7] The Ashantees also have a bag-

[1] Bowdich, p. 361. [2] Schweinfurth, i. p. 289. [3] Ibid. [4] Elson, p. 268.
[5] ii. p. 294. [6] Elson, p. 257. [7] Ambros, i. p. 547.

pipe, in which, however, the drone is rarely heard.[1] This completes the list of the principal African wind instruments.

III. STRINGED INSTRUMENTS.

The commonest of the African stringed instruments is the musical bow, which has already been described. This is found both in the centre and the south of the continent. It is used by the Bongo of the Soudan, the Bechuanas, the Kaffres, and the Zulus. Its form differs according to the locality. The Kaffre instrument is nearly five feet long, and is furnished with a resonant gourd. That of the Zulus, which is called *Gubo*, has no gourd, and is less than two feet long (see Fig. 6). Those of the Bechuanas and of the Bongo have been sufficiently described.

One of the most important instruments of the East Coast is the *Zeze* (Tzetze) or banjo (Figs. 7 and 8). This is thus described by Burton:[2] "The sounding-board is a large hollow gourd, open below; on the upper part, fastened by strings that pass through drilled holes, is a conical piece of gourd, cleft longitudinally to admit the arm or handle, which projects at a right angle. The arm is made of light wood from eighteen inches to two feet in length; the left-hand extremity has three frets formed by two notches with intervals, and thus the total range is of six notes. A single string made of *mondo*, the fibre of the *mwale*, or raphia-palm, is tied to a knob of wood projecting from the dexter extremity of the handle; thence it passes over a bridge of bent quill, which for tuning is raised or depressed, and lastly, it is secured round another knob at the end beyond the frets. Sometimes, to form a bass or drone, a second string is similarly attached along the side of the arm, whilst the treble runs along the top."[3]

One of the most characteristic of African stringed instruments

[1] Bowdich, p. 361. [2] ii. p. 292. [3] So in Fig. 8.

is the *Nanga*, or harp, of the Niam-Niams, to which reference has already been made. This is described by Schweinfurth[1] as being "something between a harp and a mandolin. It resembles the former," he says, "in the vertical arrangement of its strings, whilst, in common with the mandolin, it has a sounding-board, a neck, and screws for tightening the strings. The sounding-board is constructed on strict acoustic principles. It has two apertures; it is carved out of wood, and on the upper side is covered by a piece of skin; the strings are tightly stretched by means of pegs, and are sometimes made of fine threads of bast, and sometimes of the long wiry hairs from the tail of the giraffe." The music of the Nanga is described as very monotonous, and it is difficult to distinguish any actual melody in it. Yet Schweinfurth declares that he has not unfrequently "seen friends marching about arm-in-arm, wrapped in the mutual enjoyment of their performance, and beating time to every note by nodding their heads."[2]

Other instruments of the harp family are found in Western Africa. The *Ombi* of the Bakalai "is made of thin pieces of a resonant wood, covered with leather prepared from the ear of an elephant, or with snake, gazelle or goat skin. It has eight strings cut from the dried root of some tree"[3] The *Boulou* of the negroes of Senegambia has ten strings, and "long tuning pegs of a peculiar shape."[4] Other harps from the same region have respectively seven and eighteen strings.[5]

A curious stringed instrument from the Congo River, West Africa, is contained in the American Museum of Natural History of this city. This has a narrow wooden body, ornamented at the upper end with two small horns. Five strings of vegetable fibre pass over a low wooden bridge, and are attached to as many curved rods of bamboo which project some two feet above the body, taking the place of the single handle of the Nanga or

[1] ii. p. 30. [2] Ibid. [3] Engel, p. 151. [4] Ibid. [5] Mungo Park, quoted by Engel, p. 151.

Niam-Niam harp. A small movable loop is passed about each rod and its appropriate string, about five inches below their point of juncture, thus increasing the tension of the string, as in the Chinese violins. (See Figs. 9 and 10, China.)

The tribes in the neighborhood of Kilwa, south of Lake Nyassa, have an instrument called *Kinanda*. This is "a shallow box cut out of a single plank, thirteen inches long by five or six in breadth, and about two inches in depth: eleven or twelve strings are drawn tightly over the hollow."[1] The instrument is placed upon the lap and played with the fingers of both hands. "A combination of the Zeze and Kinanda is made by binding a dwarf hollow box with its numerous strings to the open top of a large circular gourd, which then acts as a sounding-board."[2] The *Sauko* of the Ashantees has already been described.

The Mittoo of the Soudan have a rude lyre which remarkably resembles the Kissar of the Nubians (Egypt, Fig. 2). The sounding-board of this is quadrangular, covered with skin, with a circular sound-hole at each corner. It has five strings, which pass over a bridge made of "the large shell of the Anodont mussel," and are fastened at regular intervals to a cross-bar at the top.[3]

Several instruments of the guitar family are found in Africa. Thus the Karague have "a kind of guitar," in which six of the seven strings accord perfectly with our diatonic scale, only the seventh being discordant.[4] The *Lokanga* of Madagascar is described as "a kind of native guitar," with four strings and a wooden body grotesquely carved, painted and decorated with feathers. The Rev. Wm. Ellis relates that he has often seen more than a hundred men dragging a single tree past his house, "keeping time with the Lokanga played on the way before them."[5]

[1] Burton, ii. p. 293. [2] Ibid. [3] Schweinfurth (i. p. 413) gives a picture of this lyre.
[4] Elson, p. 263. [5] Quoted by Engel, p. 151.

A few negro tribes possess a sort of rude violin. Thus some of the tribes of the Western Interior have an instrument in which the body is made of a gourd with a deerskin top, pierced with two sound-holes. It has a single string of cow's hair, and is played with a bow of the same material.[1] A similar instrument, which Major Laing heard played by a Griot or royal musician, at Semira, was strung with a horse-hair string, and had a compass of about four tones.[2]

So much for the instruments of the negroes of Africa. The character of their concerted music has already been sufficiently indicated by what has preceded. I cannot do better in closing than to quote the following eloquent description from Schweinfurth of one of the performances at the great festivals of the Bongo. "On those occasions," says this traveller,[3] "the orchestral results might fairly be described as cat's music run wild. Unwearied thumping of drums, the bellowings of gigantic trumpets, for the manufacture of which great stems of trees come into requisition, interchanged by fits and starts with the shriller blasts of some smaller horns, make up the burden of the unearthly hubbub which re-echoes miles away along the desert." Yet it would not be fair to judge all negro concerts from this description. The performances of the Karague, a tribe of the Lake region of Central Africa, are described as being far less barbarous than those of most of the other tribes of the interior. Speke[4] gives an interesting picture of one of these concerts in which seven performers are represented as taking part. One of them plays upon a harp with seven strings, a second upon a flute, a third upon a trumpet, and a fourth upon a Marimba. The fifth beats an enormous kettle-drum, while a pair of smaller drums are beaten by each of the two remaining performers. Who shall say

[1] Bowdich, p. 363. [2] Ambros, i. p. 548. [3] i. p. 288.

[4] Journal of the Discovery of the Source of the Nile, p. 212. Fétis (i. p. 38) reproduces this picture on a larger scale.

that such a representation as this does not bear witness to a musical sense quite as advanced as that evidenced by a certain Japanese picture already referred to,[1] in which six instruments of percussion are balanced against a single flute?

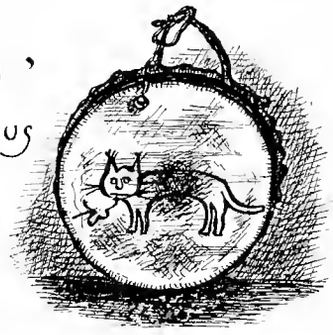
[1] Siebold: Nippon, vol. ii., Plates, Pt. IV., No. XI.

NORTH AMERICA.

North America

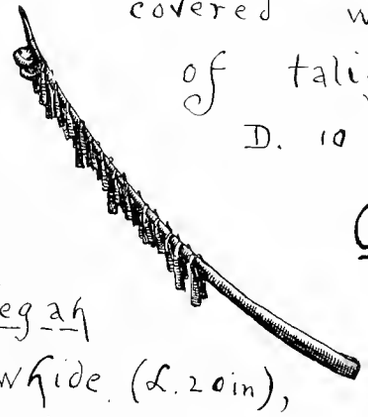
Instruments of the Sioux or Dakotas

1. Conjuror's Drum, (Wakan-chan-cha-gha) Used on religious and ceremonial occasions. Has two heads, which are smeared with generally profusely vermilion, and covered with figures, supposed to be of talismanic origin.



D. 10 in. H. 3 in.

2. Tin Conjuror's Rattle, (Chegah skah-hdah) A strip of rawhide (L. 20 in), to which are fastened a number of pieces of bent tin, and several small bells.

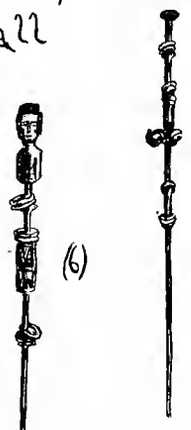


3. Conjuror's Rattle, (Pazhuta-saka) Prepared by the medicine man himself, with secret and mysterious rites. Made of rawhide, and ornamented with feathers. L. 20 in.

4. Thimble Rattle (Napo-shampidah-kah) - L. 19 in.
a wooden stick, to which are fastened several small bells and thimbles.

(4)

5. Bell-Stick Rattle (Maza-rhda-rhda-hda-hda)


(5) L. 24 in.

6. Rattle Stick, (Hanska-bugo-Kah-ho-Kah) L. 28 in.
Wood carved and stained.

(6)

7. Bracelet Rattle, (Napo-Kashke-yu-dha)

(7)

D. 4 in. Raw hide, ornamented with bits of tin and bone. Used in or chestral playing.

8. Long Flute, or Moose Call, (He-ha-Kha-zo-zo)
Its compass is about an octave, the scale being ascended by the force of the breath. L. 3 ft. 2 in.

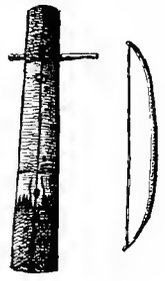
9. Horn Tapper, (Kah-to-to-kay)
Made of horn. L. 21½ in. A common instrument among the Sioux. The player taps briskly upon the blade of a tomahawk, or other sonorous object.

10. Love Flute, (Chotonka-chanta-Ki-yapi) L. 2 ft.
a species of flageolet, producing a clear mellow vibratory note. No young indian goes wooing without this instrument.

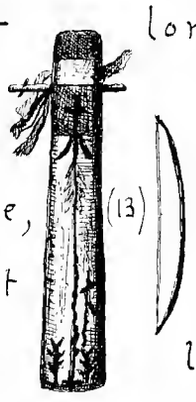
Instruments of the Apaches

11. Violin, wood, strung with horsehair. Played with a horsehair bow. Arizona. L. 12½ in D. 2 in. L. of bow 10 in.

12. Violin, larger specimen, rudely painted with bands of different colors. L. 14 in D. 3 in. Florida.



13. Violin, made at school at Carlisle, Pa. L. 15 in.

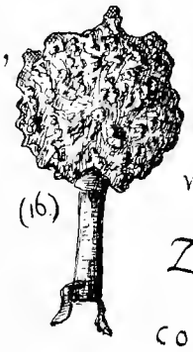


14. Love-Flute, made at Carlisle Pa.

15. Flute, made of light wood. Has two holes near the top, and two near the middle L. 17 in. D ⅞ in. Arizona. Very rare.

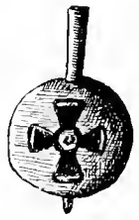
Instruments of the Pueblos

16. Gourd Rattle, used among the Zunis, a tribe of Pueblos. New Mexico Handle of wood. L. 11 in. D. 6½ in.



17. Gourd Rattle, Zuni, New Mexico Used to accompany dances. Handle of wood L. 7½ in D. 5½ in.

18. Gourd Rattle used by the Moquis of New Mexico, a tribe of Pueblos, to accompany dances. L. 9½ in. D. 5½ in.



19. Rattle, a notched stick, played by moving a wand of willow across the notches Moqui of New Mexico. L. 14 in. D. 1 in.

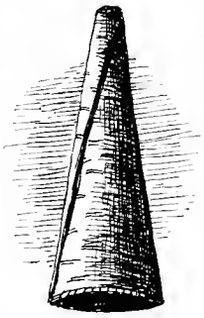
20. Rattle, made of the shell of a turtle. Handle of rawhide Moqui of Arizona 5 in × 3½ in.

21. Sheepbell, made of the horn of a Rocky Mountain sheep. L. 5½ in. W. 3 in.

Instruments of British America

22. Haida Dance Rattle, representing the crow Massett Indians, Brit. Col. L. 10 in

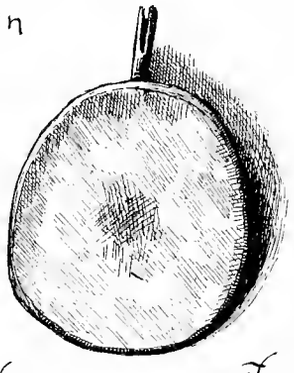
23. Rattle, Haida Indians Queen Charlotte Islands British Col. L. 13½ in



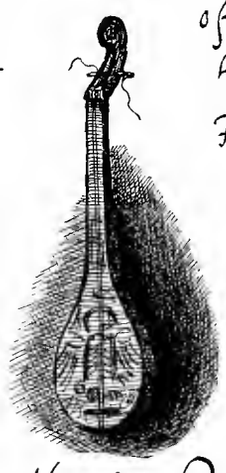
24. Squak, a rude wooden wind instrument. Fort Simpson, L. 7 in D 2½ in British Columbia.

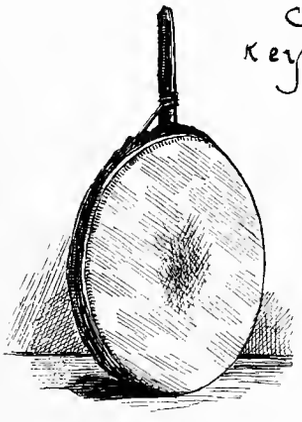
25. Moose Call, made of birch bark. Mic Mac Indians, Ristigauche. Canada. L. 1ft. 8 in D. 6 in.

1. Ke'-l-yau, single head hand drum. From the Eskimos of Point Barrow. The handle of bone, lashed to the hoop with baleen The head, of skin fastened with a long cord of sennit, or three ply braid of sinews. D. 1 ft. 4 in. L. of handle 4 in.



2. Primitive Violin. From Yac-a-tat, near Mt. St. Chas. The body of wood, rudely painted. Has 2 strings, fastened to a single key L. 1 ft. 11 in. W. 5½ in.





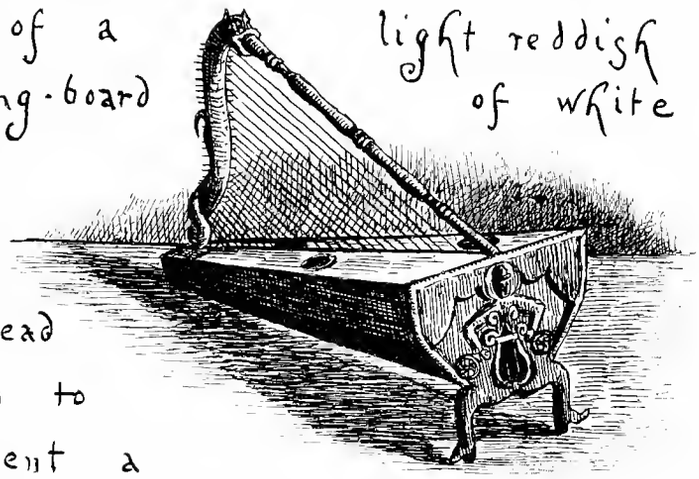
3. Hand-Drum From the Nushagag Eskimos. Held in the left hand, and played by beating the back of the hoop with a stick. D 1 ft. 5 in. The handle of wood. L. 1 ft.

1. Guitar, the back made from an armadillo skin. Decorated with the chalice and paten, and also with a cross. Strung with ten strings of gut. L. 2 ft. 4 in. W. 8½ in.

2. Pottery Bell, made by the natives. of a dark gray color. H. 10 in D. 5½ in. Morelia.

3. Bandolon, an instrument much used at the present day. Strung with 6 sets 3 wire strings Played with a small plectrum L. 2 ft. 8 in. W. 13 in.

4. Harp. Bought in the city of Mexico. The body of a light reddish wood, the sounding-board of white wood strung with 32 gut and 5 wire strings. The head carved to represent a serpent H. 2 ft. 3 in. L. 3 ft. 4 in. W. 15½ in.



5. Rattle A notched stick played by passing a thin wand of wood over the notches Used by the natives of Santo Bay W. 1 in. Espiritu L. 21 in.

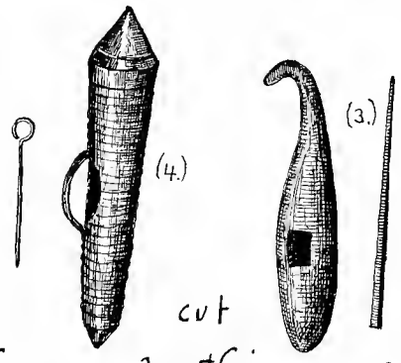
6, 7, 8. Aztec Whistles Made of clay. Found in the pyramids of Teotihuacan. L. c. 10 in.

9. Earthen Whistle

probably dug out of a mound at Morelia. Shaped like a kind of bird H. 3½ in. W. 2½ in Has two finger-holes on the front side

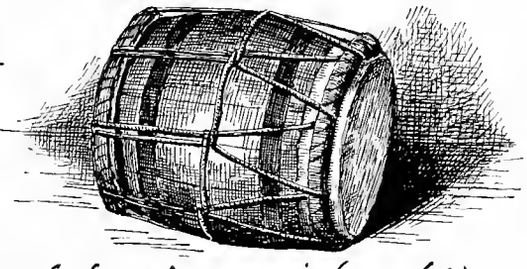
Cuba

1. Cacha, (1.) a kind of Maraca, or rattle, made of Castilla cane, with hard seeds resembling marbles inside Used by the Creole colored people, and shaken in accompaniment to the Guitar. H. 14 in. (2.) W. 6 in.

2. Maruga, a tin rattle, with shot inside.  (4.) (3.) L. 11 in. Creole.

3. Guiro, a long thin gourd, with notches cut on the back, along which a thin stick is scraped. Used to accompany the Guitar. L. 16 in

4. Guiro, made of tin. L. 18 in.

5. Tohona, a  rude drum, made of a wooden keg, the heads covered with hide. H. 13 in. D. 13 in.

XVI.

MUSIC OF THE NORTH AMERICAN INDIANS.

NO part of the history of savage music is more interesting than that which treats of the music of the various Indian tribes of North America. Yet perhaps there is no subject in all musical history of which so little is known. "One of the first things we hear of the Indians, after their discovery," says Schoolcraft, "is their proneness to singing and dancing. But however characteristic these traits may be, and we think they are eminently so, it has fallen to the lot of but few to put on record specimens which may be appealed to as evidences of the current opinion on these heads. With favorable opportunities of observation among the tribes, we have but to add our testimony to the difficulties of making collections in these departments which shall not compromise the intellectual character of the tribes, whose efforts are always oral, and very commonly extemporaneous."[1] These words were written forty years ago by the best living authority on all matters connected with the North American Indians. I can only attempt here to give the reader a general idea of the rich field which still waits to be explored.

As in the case of the negroes of Africa, so among the various Indian tribes of North America, we find very different degrees of musical development. While it may be said with confidence that all Indians are fond of music of some kind, the character of

[1] The Indian in his Wigwam, p. 221.

that music varies greatly with the locality and the tribe. The rude natives of Alaska content themselves with rattles and drums. As we proceed southward, wind instruments come into use. The Haidas of the west coast of British America have a great variety of rude wooden pipes and flutes. Among the Sioux or Dakotas we find flageolets with six and seven finger-holes. Whereas, with many other tribes, musical instruments are used only to accompany singing and the dance, the orchestral performances of the Dakotas are quite elaborate. The Apaches possess a rude violin with one string, while the Pueblos of New Mexico are contented chiefly with instruments of percussion. Scarcely less marked are the differences in the character of the songs of the various tribes. Some are extremely monotonous, and contained within a very narrow compass. The range of others is no less than two octaves. In general we may say that the character of the music of any particular tribe is a very fair index of its general development.

In view of such differences, it is difficult to make any satisfactory generalizations on the subject of Indian music. The remarks in the present chapter are necessarily of this character; and unless it is otherwise stated, are to be taken as applying chiefly to those tribes which, like the Sioux and the Apaches, have reached a relatively high state of musical development.

The North American Indian is naturally a poet. His war songs "contain flights of the finest heroic sentiment, clothed in poetic imagery."[1] The addresses of his orators abound in eloquent and poetic thought. He is a wonderfully close observer of nature. "He pays a religious attention to every sound that strikes upon his ear; when the leaves softly shaken by the evening breeze, seem to sigh through the air, or when the tempest, bursting forth with fury, shakes the gigantic trees that crack like frail reeds. The chirping of birds, the cry of the wild beasts—in a word, all those sweet, grave, or imposing voices that animate the wilderness, are

[1] Schoolcraft, p. 221.

so many musical lessons which he easily remembers."[1] The great storehouse of his imagery is the heavens. "The clouds, the planets, the sun and moon, the phenomena of lightning, thunder, electricity, aerial sounds, electric or atmospheric, and the endless variety produced in the heavens by light and shade, and by elemental action,—these constitute the fruitful themes of allusion in his songs or poetic chants."[2]

The poetry of the Indian's nature finds special expression in his love songs. "When the son of a chief wishes to get married," says Domenech,[3] "he takes his flute and goes at night towards the cabin wherein she rests whom he has chosen for his future spouse. He begins by playing a melancholy tune; then he sings words of his own composition, which enumerate the charms of his beloved. He compares her to the sweet perfume of the wild flowers, to the pure water that flows from the rocks, to the graceful trees of the forests, and to the verdant banks of the river in which she bathes. He afterwards promises her a long series of happy days in his wigwam, until the hour when they should depart for the enchanted prairies where joy is without end. When the songs are ended, he commences with airs on the flute, which render as well as possible the sentiments that animate him."

It is very difficult to reproduce in English the spirit of these Indian songs. The following specimen has, however, been very happily rendered by Domenech, and will serve excellently to illustrate the remarks that precede. It is the serenade of a young Indian to his beloved.

"My dove's eye, listen to the sound of my flute;
Hearken to the voice of my songs, it is my voice.
Do not blush: all thy thoughts are known to me.
I have my magic shield, thou canst not escape.

[1] Domenech: Seven Years' Residence in the Great Deserts of North America, ii. p. 146.

[2] Schoolcraft, p. 224. [3] ii. p. 148.

"I shall always draw thee to me, even shouldest thou be
In the most distant isle, beyond the great lakes.
. . . . . .
"The Great Spirit is for me, my betrothed.
Hearken to the voice of my songs, it is my voice." [1]

I quote also from the same author the following interesting experience in further illustration of what has been said as to the fondness of the Indian for nature, and its effect upon his musical conceptions. The writer had on one occasion taken refuge from a violent storm in an Indian wigwam. "Our host," he says, "was an Indian, with sparkling eyes, clad with a certain elegance, and wrapped majestically in a large fur cloak. Seated close to the fire, which cast a reddish gleam through the interior of his wigwam, he felt himself all at once seized with an irresistible desire to imitate the convulsions of nature and to sing his impressions. So, taking hold of a drum which hung near his bed, he beat a slight rolling resembling the distant sounds of the approaching storm; then raising his voice to a shrill treble, which he knew how to soften when he pleased, he imitated the whistling of the air, the creaking of the branches dashing against one another, and the particular sound produced by dead leaves when accumulated in compact masses on the ground. By degrees the rollings of the drum became more frequent and louder, the chants more sonorous and shrill, and at last our Indian shrieked, howled and roared in a most frightful manner; he struggled and struck his instrument with extraordinary rapidity. It was a real tempest, to which nothing was wanting, not even the dismal howling of the dogs, nor the bellowing of the affrighted buffaloes. One could not possibly carry further the talent of imitation." [2]

The songs of the Indian are the natural expression of his feelings. Every event in life is celebrated with its appropriate song. The medicine man sings, or rather chants, as he performs

[1] Domenech, ii. p. 148.

[2] ii. p. 147.

his mysterious rites; the chief incites his followers to battle with a song; the warriors sing as they rush into the fray; the hunters console themselves by singing for ill success in the chase; the mother sings as she rocks her infant to sleep; the youth expresses the depth of his affection by a song. "There is no feast and no religious ceremony among them," says Schoolcraft,[1] "which is not attended with dancing and songs." The character of special songs naturally varies greatly with the occasion. "The Indian chants," says Domenech,[2] "are generally monotonous recitations stamped with a vague sadness, a kind of wailings in a minor key, which it would be impossible to translate literally without mutilating them or stripping them of their principal interest." They are usually improvised for the occasion. Thus, when warriors returning from an unsuccessful expedition desire to console themselves by singing, "the cleverest extemporize music and couplets, and at the end of each stanza all the company repeat the first or the first two verses, in a tone full of languor and originality."[3] The death-chant for a fallen warrior is always an improvisation, "dictated by the circumstances which have inspired it."[4] The sacred or religious chants of the Indians are described by Domenech as being incoherent and fantastic. "Generally speaking," he says,[5] "the second stanza appears to have no connection with the first, and the sound which unites them, when there is one, remains in the singer's mind." Far different is the character of the Indian war-songs. When a chief wishes to attack a neighboring tribe, he enlists the voluntary services of his warriors by couriers. "Then, in a preparatory ceremony, he extemporizes a few stanzas of lively, energetic poetry, which he sings with a fiery enthusiasm, gesticulating and accompanying himself with drums and *raquettes*."[6] A song of this kind must be anything but monotonous. Schoolcraft[7] has pre-

[1] Indian in his Wigwam, p. 222. [2] ii. p. 149. [3] Ibid

[4] Ibid. ii. p. 162. [5] ii. p. 151. [6] *i.e.*, rattles. Domenech, ii. p 155.

[7] Information respecting the History, Condition, etc., of the Indian Tribes of the United States, vol. v. p. 562.

served the words and the music of a Chippewa war-song, in which the range of notes was almost two octaves.

A striking feature of the Indian songs is their rhythmic character. This is only what we might be led to expect, both from the fondness of the Indian for instruments of percussion, and the important place in his life occupied by the dance.

"It is certain," says Schoolcraft,[1] "that the Indian ear is exact in noting musical sounds and in marking and beating time. But little observation at their dances will be sufficient to establish this fact. Nor is it less certain, by attention to the philology of their language, that they are exact in their laws of euphony and syllabical quantity. How this remark may consist with the use of unmeasured and fluctuating poetry in their songs it may require studied attention to answer. It is to be observed, however, that these songs are rather *recited* or *chanted* than sung. . . . Most of the graver pieces which have been written out are arranged in metres of sixes, sevens, and eights. The lighter chants are in threes and fours, and consist of iambics and trochees irregularly."

Among the Ahts of Vancouver Island, "the required expression is usually given by uttering the sounds in quick or slow succession, rather than by any attempt at musical cadence."[2] Yet the accuracy of their ear is attested by the fact that after a few hearings they are able to reproduce perfectly both the notes and the expression of European songs.

The Indians accompany most of their songs with the free use of instruments of percussion, especially the drum and the rattle. Catlin speaks of the use of drums by the Sioux to accompany "their numerous and never-ending songs of amusement, thanksgiving, and medicine, or *metai*."[3] The same traveller witnessed some voluntary tortures at a certain religious ceremony of the Mandans, during part of which the music was furnished by "four

[1] Indian in his Wigwam, p. 225.

[2] Sproat: Scenes and Studies of Savage Life, p. 64.

[3] Illustrations of the Manners, Customs, etc., of the North American Indians, i. p. 241.

very aged and patriarchal looking men," who sang at the highest possible pitch, accompanying themselves by "thumping with mallets or drumsticks" upon four sacks full of water, while a fifth "brandished and shook the *ech-na-dees*, or rattles."[1] Even those tribes which possess numerous and comparatively perfect wind instruments use them only for solo purposes, never as instruments of accompaniment.[2] The Indian lover precedes his song by a prelude upon the flute, but he relies for his most potent effects upon the unaided charms of his voice. Whether the Apaches use their violin as an instrument of accompaniment or not I am unable to state, though the former would seem probable.

One of the most potent factors in the life of the Indian is the dance. Singing and dancing are so closely connected in his thought, that it is almost impossible to separate them. "Dancing," says Schoolcraft, "is interwoven throughout the whole texture of Indian society, so that there is scarcely an event, important or trivial, private or public, which is not connected, more or less intimately, with this rite. The instances where singing is adopted, without dancing, are nearly all confined to occurrences of a domestic character."[3] The dance is practised both as a religious ceremony and a secular amusement. "Thanks are thus expressed for success in hunting, for triumphs in war, and for ordinary providential cares. Public opinion is called to pressing objects by a dance, at which addresses are made, and moral instruction is given to the young, in the case of their being assembled at social feasts and dances. Dancing is indeed the common resource whenever the mass of the Indian mind is to be acted on."[4] It is almost invariably accompanied by the beating of drums and the shaking of rattles, as well as by the singing of the performers. The Apache dances, which last from sunrise

[1] i. p. 165.

[2] An exception, however, must be made in the case of the whistle, which is often used in orchestral music.

[3] Indian in his Wigwam, p. 222.

[4] Ibid. p. 222.

to sunset, are accompanied by the beating of drums and tom-toms. "Old squaws and young children dance till they can stand it no longer, and cease from exhaustion and fatigue; a cessation of but a few moments, and they are up and at it again."[1] Among some tribes a notched stick is used to keep time, which is "drawn on a resisting medium, being supported by a reversed pan or the shell of a gourd."[2] A curious dance of the Moquis of New Mexico, in which twenty men and twenty women, all fantastically dressed, took part, is thus described by Schoolcraft.[3] The performers carried in their hands gourds filled with small pebbles, which they rattled to keep time to the dancing. "They all furnished their own music, and a most strange sound it was, resembling very much the noise, on a large scale, of a swarm of blue-bottle flies in an empty hogshead. Each one was rolling out *aw*, *aw*, *aw*, in a deep bass tone; and the sound coming through a hollow visor, produced the effect described." At the dances of the Ahts of Vancouver Island, "the spectators sing, and beat time on their wooden dishes and bearskin drums."[4] In some cases, the performers join in the song themselves.[5] The ordinary dances of the Indian tribes of the United States are too well known to need description.

One of the most important figures in connection with Indian music is that of the prophet or medicine man. "These men," says Schoolcraft,[6] "more than any other class, have cultivated their national songs and dances, and may be regarded as the skalds or poets of the tribes. They are generally the composers of the songs, and the leaders in the dance and ceremonies, and it is found that their memories are the best stored, not only with the sacred songs and chants, but also with the traditions and general lore of the tribes." Their special instruments are the drum and

[1] Schwatka: Among the Apaches; *Century Magazine*, May, 1887.

[2] Schoolcraft: Information respecting . . . the Indian Tribes, ii. p. 514. [3] Ibid. iv. p. 83.

[4] Sproat, p. 66. [5] Ibid. p. 67. [6] Indian in his Wigwam, p. 222.

the rattle. The use of the former by the sorcerers of Lapland and Greenland has already been referred to.[1] The Shamans or conjurers of Alaska have drums sometimes three feet in diameter, and rattles of a peculiar shape and construction, presently to be described. Among the Ahts are found sorcerers whose performances are thus described by Sproat:[2] "The whole gamut of the most frightful noises which the human voice, the collision of hard substances, and the beating of bearskin drums can produce, is run up and down by them with ease. The howling of the Aht sorcerers is perfectly demoniacal; no wild beast could utter sounds so calculated to strike sudden terror into the heart." The performances of the medicine men of the Indian tribes of the United States are too familiar to need description here.

In this connection I may mention a class of bards or minstrels found among the Indians of the west coast of British America. "In almost every tribe," says Sproat,[3] "there is an old man who sings war-chants and songs of praise at public feasts. One old man from Klah-oh-quaht Sound, blind from age, accompanied by his two sons who lead him about, visits the different tribes of his own nation, the Aht, every summer. . . . On landing at a camp, this gray-haired minstrel praises the tribe and the chief, and makes a song to which they listen quite pleased, and some one, whose benevolence or whose vanity has been touched, gives him a present." Though in reality one of the richest men in the tribe, he sings in quite pathetic fashion of his poverty. "I have come far," he says, "and am old, and will need blankets for the winter." This venerable beggar will sing for an hour at a time, if enough gifts are forthcoming. If not, he asks for them "in most unbard-like manner."

A word in conclusion as to the instrumental music of the Indians. As might be expected, this occupies a relatively unim-

[1] Schoolcraft (Information, etc., i. p. 425) gives a drawing of a Lapland sorcerer's drum, on which are inscribed no less than 150 talismanic figures. [2] p. 170. [3] p. 64.

portant place. I have already stated that wind instruments are principally used for solo purposes, the most important being the love-flute or flageolet, the moose-call, and the war-fife.[1] The drum also, though usually associated with the voice, is occasionally used as a solo instrument. Orchestral performances are common, but almost always take place in connection with singing and dancing. On such occasions, as has already been said, instruments of percussion are principally used. In the Dakota orchestra, however, wind instruments have an important place. A full band usually consists of three drums, from three to twelve wind instruments, from three to twenty different kinds of rattles, and as many tappers.[2] The performances of such an orchestra often continue for days and weeks at a time. I have been informed by Dr. Sweeny that he once heard a tune two weeks long, which had already been going on ten days before he arrived at the performance, and lasted three weeks after he left. The impression produced upon his ear by this lengthy entertainment was anything but pleasing. "It seemed to me," he remarked in describing his impressions afterwards, "that the less harmony there was among the instruments, the more there was among the performers." Yet he speaks in emphatic terms of the rhythmic character of the whole performance. This testimony, therefore, goes to confirm the fact which has already been established, that the distinguishing characteristic of savage music, wherever found, whether in the islands of the Pacific, the interior of Africa, or among the mountains and prairies of our own continent, is a prominence of the rhythmic as contrasted with the melodic element.

[1] A special description of each of these will be given in the following chapter.

[2] The nature of the tapper will be explained in the following chapter.

XVII.

MUSICAL INSTRUMENTS OF NORTH AMERICA.

IN taking up the subject of the musical instruments of North America, I shall consider, first, the instruments of Alaska; second, those of the Indians of British America; third, those of the tribes of the United States, especially of the Dakotas, the Apaches, and the Pueblos, and finally those of the natives of Mexico.

I. The only instrument of the Eskimos who live along the north coast of Alaska is the drum. This consists of a circle of wood, usually between twelve and eighteen inches in diameter, over which a head of skin is tightly stretched and lashed with a cord of braided sinews. Two specimens of this kind are shown in Figs. 1 and 3. In the first, called Ke'-l-yau, the handle is formed of a piece of bone, fastened to the hoop with whalebone. In the second, the handle is of wood, and is held in place by a cord of sinews. The instrument is held in the left hand, and played by beating the back of the hoop with a stick. Similar drums are found among almost all northern peoples, especially among the Laplanders and the Greenlanders. In describing the dances of the latter, Cranz says: "Their only instrument is the drum, which is made of a circle of wood or of whalebone, about two fingers broad, covered on one side only with a thin piece of hide, or of the skin of the whale's tongue. It is somewhat oval in shape, about a foot and a half in diameter, and is furnished with a handle by which to hold it. This the Greenlander takes in his

left hand, and beats with a little stick upon the under surface of the hoop, skipping up a little way into the air at every stroke, yet so as never to move from one spot, and making all sorts of wonderful motions with his head and with his whole body—and all this in four-four time, two strokes of the drum falling to every quarter beat."[1] At the same time he sings of the seal-hunt, celebrates the deeds of his ancestors, or expresses his joy at the return of the sun, the voices of the bystanders furnishing a sort of running accompaniment to the whole.

Passing now to the Indians proper, we find that the more northern tribes are contented solely with instruments of percussion. It is true that among the Thlinkets various wind instruments may be found, but in the opinion of the best authorities[2] these have all been introduced from the more southern tribes. The native instruments of the Alaskan Indian are the drum and the rattle. The first consists either of a wooden box or of skin stretched on a circular frame of wood.[3] "The drum," says Lieut. Emmons, "is an important feature in the practice of Shamanism,[4] as indeed it is present on all ceremonial occasions to accompany the songs and chants." Its size varies greatly. A large Shaman's drum from Chilcat, contained in the American Museum of Natural History, is not less than three feet in diameter, while the same collection contains also a small specimen which is not more than seven inches in diameter. The drumstick of the former is made of a thin piece of wood bent back at the end so as to form a loop, and ornamented with eagle's feathers.

The rattle plays an important part in the music and in the life of the Alaskan Indian. It is used by the Shamans in their mysterious rites and by the chiefs in their dances. "From the earliest accounts we have of the natives of the northwest coast," says

[1] Historie von Grönland, p. 229.

[2] So Lieut. Emmons, in the unpublished Catalogue of his valuable collection in the American Museum of Natural History, New York City.

[3] Emmons. [4] The Shaman is the Alaskan prophet or medicine man.

Lieut. Emmons, "rattles in their various forms are used on all occasions of ceremony and dancing, and so ancient is this use that they can account for them only as something that their ancestors have handed down to them. The following tradition was given by a Sitka native: 'In the first days of life an old man with his nephew lived in the Nass River country. The nephew was idle and worthless, and would spend his days sleeping and sitting about. At last the uncle became provoked, and put an axe in the nephew's hand, and sent him out in the wood to cut down a tree for fire-wood. The boy wandered out, and having selected a large tree, felled it, and commenced splitting it up, when in the centre he discovered a box, and upon opening it found a rattle, waist cloth, and other dancing materials. These he took back to the old man, who immediately put them into use, and from these all others were copied by visitors.'"[1]

There are many different varieties of the rattle. That used by the chiefs in their dances seems to be conventional in form. "It is generally in the form of a crow, the under half carved to represent an owl, and on the back a dead man with protruding tongue, and such other figures as the frog, land otter, kingfisher, etc."[2] In general dances the rattle is used not only by the chiefs, but also by all the members of the tribe, men, women, and children alike.

The rattle is an indispensable part of the Shaman's furnishing. He uses it both in his exhibition dances, and when treating the sick. In its construction he follows his own fancy. Sometimes it is carved "to represent the crow, or the oyster-catcher, and on the outside the land otter, mountain goat, mink, devil-fish, and the witches and spirits, all of which are supposed to assist him in his practice." It is usually ornamented with the skin of the ermine. Some of the Shaman rattles represent *Kush-tar-kar*, or "Spirit of the drowned," a creature midway between man and otter, who cannot sing, but only whistle, and is supposed to be

[1] Catalogue.

[2] Ibid. Cf. the Haida Rattle, Fig. 23, North America.

always playing tricks on mortals. Many of the Shaman rattles are very old, some being supposed to date back more than a hundred years.

A curious rattle from Rasbonisky, Alaska, is represented in Fig. 2 (Miscellaneous). This consists of a long stick ornamented with feathers, to which is attached, by a cord of sinews, a small wooden box filled with pebbles.[1] Its use is confined to religious ceremonies.

In addition to the drum and the rattle, the Shamans use in their ceremonies a number of wooden sticks. These are distributed to the various members of the Shaman's family, and are beaten by them upon the floor of the house in which he is to practise, as an accompaniment to the drum and the chant of the Shaman himself.[2]

A rude stringed instrument from Yac-a-tat, Alaska, is represented in Fig. 2. The body of this is made of thin pieces of wood, neatly fastened together, and painted or stained with a variety of rude figures in red and blue. Two strings pass over a low bridge and are fastened to the handle by a single key. Although this instrument was obtained from a tribe of Indians who are rarely visited by a white man, it seems quite inconceivable that a form so far advanced, and so entirely unparalleled among the instruments found in other parts of Alaska, should have been developed by these Indians without external assistance. It is probably a rude copy of a European instrument carried to that region by some white man years ago.[3]

[1] Not seeds, as erroneously stated in the description accompanying the drawing. [2] Emmons.

[3] Though there is no evidence that it is intended to be played with a bow, I incline to think it copied after a violin, which instrument it resembles in general shape, especially in the handle.

NOTE.—While this volume was passing through the press, I received, through the kindness of Mr. Elliott F. Shepard, two stringed instruments of similar character from the same locality. The larger was two feet long by ten inches broad, and the smaller one foot long by five inches broad. Both alike were strung with two strings, each of which, however, was attached to its special peg. The gentleman who forwarded the specimens expresses the opinion that the Indian who made them "must have seen something of the kind on some whaler or some Russian vessel when they had possession of the country," thus confirming the opinion expressed above.

II. As we move southward and reach the tribes of the west coast of British America, we find them using drums and rattles of the same kind as their northern neighbors. Thus the dance-rattles of the Haida Indians of British Columbia (Figs. 22 and 23) are almost identical with those which have been described as found among the Thlinkets of Alaska. The bearskin drums of the Ahts have already been referred to. We find also among the Haida Indians a great number of curious wooden pipes and wind instruments. These are of different kinds and shapes, varying in length from a few inches to two or three feet. One of the smaller specimens is shown in Fig. 24. This consists of a funnel-shaped piece of wood, about seven inches long, through the interior of which run three nearly parallel holes, which come together at the top, and are furnished with a common mouth-piece. Other instruments of the same kind are found of various lengths, some with a single opening, others with more than one; some consisting of a single tube, others branching out at the base into two: all alike are furnished with a mouth-piece of split wood, made on the principle of the oboe.[1] The mouth-piece of the specimen in the present collection has unfortunately been lost. Besides pipes of this kind, the Haidas possess also a small instrument with two tubes on the syrinx principle, and a well-constructed flute with four finger-holes. The Emmons collection contains also a very curious wind instrument, in which the wind, instead of being furnished by the breath of the performer, is supplied by the action of a small bellows of wood and skin.

III. Turning now to the Indian tribes of the United States, I take up first the instruments of the Sioux or Dakotas. These consist of drums, rattles, tappers, whistles, flutes, and flageolets.

The Sioux drums rarely exceed eighteen inches in diameter. They are of three kinds: the war drum, the medicine man's drum, and the common drum. The first consists of a frame of wood,

[1] A large number of these instruments are contained in the Emmons collection of Alaskan curiosities.

furnished with a single head of skin. In order to secure the proper or approved tone, the head is moistened. "The effect," says Dr. Sweeny,[1] "is particularly weird and awful; the sound seems as if it were smothered, and yet pervades the air—you *feel* it as much as hear it. It can be heard in the woods a long distance, and yet when you are close to it, it seems as far away as ever." The war drum is usually painted black, or at least decorated on the sides and back with mysterious black figures. It is beaten with a curved drumstick of the same shape as that used by the Shamans of Alaska. The Indians attribute to this drum a great antiquity, and claim that it has not changed in form since the earliest days.

The conjurer's or medicine man's drum is shown in Fig. 1. This has two heads, which are usually profusely smeared with vermilion. It rarely exceeds a foot in diameter. It is never moistened, like the war drum, and is beaten with a drumstick of wood, with a head of hollow rawhide.

The common or layman's drum may be of two kinds. In the first, which differs little in shape from our own drum, the frame consists of an empty keg covered on both sides with skin. The second differs from the conjurer's drum only in being larger and thicker. A fine specimen of this kind, with a remarkably soft and sweet tone, is shown in Fig. 1 (Miscellaneous). The common drum is usually undecorated, or at least only with a few mysterious pictographs, the meaning of which is known only to the artist who makes them. So great is the popularity of this instrument, that on entering an Indian village at any time, the traveller will be almost sure to be greeted by the tones of at least two or three of these drums. "The fact is," remarks Dr. Sweeny, "Indians are nervous and excitable, and when one of them feels the need of a sedative, he takes his drum, pulls down and fastens

[1] I quote here and elsewhere from an unpublished paper by Dr. Sweeny, of St. Paul, Minn., which he has very kindly furnished me for the present purpose.

the door-curtain of his lodge, to let the world know he is engaged and not to be disturbed, retires to the seat of honor (furthest from the door), and with his drum between his knees, pounds and sings himself into the desired condition of placidity and enjoyable state of health."

Hardly second in importance to the drum in the estimation of the Sioux is the rattle. It would be quite impossible even to enumerate all the different varieties of this instrument. All sorts of materials are used in its construction—wood, bits of copper and tin, bells, thimbles, pieces of horn, elk tusks, deer toes, bones, wampum, quills, turtle shells, and even the rattles of the rattle-snake. Three rather picturesque specimens are shown in Figs. 4, 5 and 6. Fig. 7 is a bracelet rattle, consisting of a piece of raw-hide, to which are attached bits of tin and bone. This is fastened about the wrist, and gives a rhythmic sound, as the hand is moved up and down in regular time.

The most important of the Sioux rattles is that of the conjurer or medicine man. This he usually makes himself with very dark and mysterious ceremonies. Special rattles are prepared for special occasions, each having somewhere about it an image or images of the special Wâ-kon (spirit), who is supposed to preside over the performance at which it is to be used. The most common form of the conjurer's rattle is shown in Fig. 3. "This is made of rawhide, stretched over a tightly-blown bladder, which contains pebbles and charms of various kinds, and some red-colored objects (for red is the sacred or mysterious color) which impart Wâ-kon, and make it efficacious 'medicine.'"[1] Another form of the conjurer's rattle is shown in Fig. 2.

One of the most important instruments in the Sioux orchestra is the Tapper. This is the name given by Dr. Sweeny to "a smooth, hard rod about twelve or eighteen inches long, held lightly with the fingers of the right hand, and tapped briskly upon

[1] Sweeny.

some sonorous object, such as the back of a bow, a pipe-stem, the blade of a tomahawk or a buffalo rib. The tapper is made sometimes of wood and sometimes of horn (Fig. 9). In some cases it consists of a single rod; in others, of a double, or even of a triple one. The triple tapper gives to the note a peculiar shake. The intervals between the blows are short yet distinctly appreciable, and in the lift and motion to the right, the springing together of the rods repeats the notes in a softer tone and different key. The object upon which the tapper is struck also gives out *its* peculiar tone, so there are several distinct notes produced at a single stroke."[1] By moving the forefinger up the blade of the tomahawk, towards the edge, the note is sharpened, and by taking the finger from the blade a low and ringing note results. The effect produced by ten or twelve of these tappers, combined with a number of rattles, drums and whistles, and with the chanting of many low-pitched voices, must certainly be very curious and striking.

It remains to consider the wind instruments of the Sioux. One of the most peculiar of these is the Long Flute or Moose-Call (*He-ha-kha-zo-zo*) (Fig. 8), the notes of which are supposed to resemble "the whistling tones of the love-sick elk." This instrument is from three to four feet in length. "It has no keys or holes, except where the reed is placed, which is made of birch bark, and secured to the body of the wooden instrument by glue and finely-wrapped sinews. The compass is about an octave, and the scale is ascended by the force of the breath. On the water it can be heard a long distance, and its sound is very sweet, but rather melancholy and depressing when heard in the twilight stillness."[2]

The Love-flute (*Cho-tonka*) of the Dakotas has been more

[1] Sweeny.

[2] Ibid. This seems to be the same instrument referred to by Catlin as the "mystery whistle," whose peculiarly sweet tone could be elicited only by the Indians themselves (North American Indians, Letter 30).

than once referred to. (See Fig. 10.) This is a "kind of flageolet without a reed," which produces a "clear, distinct, mellow, vibratory note." It is made of a single piece of wood, and is furnished with six finger-holes. Melodies produced by the performers upon this instrument are said by Dr. Sweeny to resemble in character many Scotch and Irish airs. No young Indian ever goes wooing without the Cho-tonka. Standing before the cabin of his lady-love, he will blow "for hours together and from day to day."[1] The use of this instrument is common to many other tribes. An Apache specimen is shown in Fig. 14. In some cases it is made of two pieces of wood, instead of one. Thus the *Pib-be-gwun*, described by Schoolcraft,[2] consists of "semi-cylindrical pieces of cedar glued together. Often they are further bound together by rings of pewter. The Chippewas frequently draw a snake's skin over the cedar tube." The number of finger-holes varies from five to seven.

The last of the Sioux wind instruments is a rude whistle made of a hollow bone, with two or three holes, varying in size and tone to suit the taste of the performer. This is a very popular instrument, forming a necessary part of every Sioux orchestra. "Other whistles are made of bones, quills and wooden cylinders (used as a boy blows over the end of a key), sometimes singly and sometimes in pairs or three,"[3] but never more than three together.

Catlin mentions also a war-whistle, which is used exclusively by the chiefs. This is made of a piece of bone, and may be blown through either end indifferently. It yields two distinct tones, according as it is blown through one end or the other.[4]

[1] Catlin, Letter 30, where the same instrument is described as the Winnebago Courting Flute.

[2] ii. p. 514. [3] Sweeny.

[4] North American Indians, Letter 30. The same instrument is described by Domenech (ii. p. 139), who says that it is usually carried suspended from the neck or underclothes. By blowing at one end, you draw from it a shrill note, which serves as the signal for attack, and by blowing at the other extremity, the instrument produces a softer sound, which indicates the rallying or the retreat.

The drums, rattles, and wind instruments of the Apaches of Arizona are similar in character to those of the Sioux. A small flute, consisting of a reed pierced with four finger-holes, two in the middle and two near the top, is shown in Fig. 15. This is, however, very rare, and it is almost impossible to procure a specimen.

The Apaches also possess a small violin, with a single string. (See Figs. 11, 12,[1] and 13.) The body is made of a piece of soft wood, rounded and hollowed, and usually ornamented with simple figures or with bands of different colors. A narrow opening in the lower part, directly beneath the string, serves as a sound hole. The length of the body varies from twelve to fifteen inches. The string is made of a number of horse-hairs, passing over a little bridge at the lower end, and fastened to a small round piece of wood, which passes through the upper part of the body and serves as a key. The small specimen (Fig. 11) has no bridge, but instead is furnished with two such keys, one at each end. The bow, which rarely exceeds ten inches in length, is furnished with a coarse string of horsehair.

The instruments of the Pueblos of Arizona and New Mexico are principally rattles of different kinds, though Domenech[2] speaks of the Moquis[3] as using a "pastoral flute." The most common form of rattle is a gourd filled with small stones. (See Figs. 16, 17, and 18.) In their dances they often keep time by moving a wand of willow along the unequal surface of a notched stick. (See Fig. 19, also Fig. 5, Mexico.[4]) Fig. 20 is probably a leg rattle. This is made of the shell of a turtle, to which are attached by strips of rawhide a number of bits of bone, horn, etc. It is fastened above the knee by a cord of rawhide, and like the dancing-bells of the Hindus, sounds in time with the motions of the dancer's body.

Fig. 21 represents a rude bell made out of the horn of a Rocky

[1] Fig. 12, though coming from Florida, is probably of Apache origin. [2] ii. p. 139.

[3] A tribe of Pueblos. [4] The same principle has already been noticed in the Yu or tiger-box of China.

Mountain sheep. The clapper consists of a small stone fastened to the end of a strip of rawhide.

IV. In considering the musical instruments of Mexico, we must distinguish three different classes. The first consists of those which have been introduced by the European invaders. To this class belong Figs. 1, 3, and 4, in the Catalogue. The second consists of the instruments of native origin now in actual use. Of these, drums and rattles are the most common. Pottery whistles, flutes, and bells are also found. (See Fig. 2.) Engel[1] also mentions a long wooden trumpet called *Acocotl*, or *Clarin*. "This consists of a very thin tube, from eight to ten feet in length, and generally not quite straight, but with some irregular curves. This tube, which is often not thicker than a couple of inches in diameter, terminates at one end in a sort of 'bell,' and has at the other end a small mouth-piece, resembling in shape that of a clarionet. The tube is made of the dry stalk of a plant which is common in Mexico, and which likewise the Indians call Acocotl. The most singular characteristic of the instrument is, that the performer does not blow into it, but inhales the air through it, or rather he produces the sound by sucking the mouth-piece. It is said to require strong lungs to perform on the Acocotl effectively, according to Indian notions of taste."

The third class of Mexican musical instruments consists of the relics which have been preserved in the various mounds and pyramids of the Aztecs. To this class belong the specimens shown in Figs. 6 to 9. I cannot attempt here to discuss the interesting subject of the music of the Aztecs,[2] but will content myself with remarking that this wonderful people undoubtedly possessed a great variety both of wind instruments and instruments of percussion. Most of the specimens which have come down to us are of the former class, consisting principally of flutes and whistles of pot-

[1] Musical Instruments, etc., p. 73.

[2] For information on this subject the reader is referred to Engel, pp. 65–89, and Rowbotham, i. pp. 327–342.

tery or bone. These are found of all possible shapes,—some with finger-holes and some without. The following interesting passage from Rowbotham will give the reader some idea of the variety in the character and the form of these early Mexican instruments:[1] "They made their whistles," he says, "in the shape of birds,[2] frogs, men's heads; their teponaztlis, even the ordinary ones, were covered with carvings, but the teponaztlis used in war—the war drums, as we should call them—were cut in the figure of a man crouching on his knees; his back was the drum, and he had eyes of bone and beautifully braided hair, ear-rings, necklaces, and boat-shaped shoes on his feet, all carved in a mulberry-colored wood, and highly burnished. And while other nations have been content to make their tambourines of a round frame covered with a piece of skin, the Mexicans made theirs in the form of a snake biting a tortoise's head. The snake was coiled up in three coils on the tortoise's back, and the arch of its neck served as a handle, and the belly of the tortoise served as the tambourine, being made of a flat slice of tortoise shell (the rest of the tortoise was of wood) and struck by the right hand, while the instrument itself was held by the left. And here was a peculiar thing about these snakes and tortoise tambourines: there were holes in the tortoise's back which served as stops, and were covered by the fingers. So delicate an ear had the Mexicans for all the shades of percussional sounds, that they could appreciate the variation caused by the stopping and unstopping of a hole in the body of a tambourine no bigger than the hole of an ordinary flute stop. And they had rattles made in the shape of a snake crushing a toad in its coils; and things very much like the Chinese egg-instruments,[3] that were really flageolets with two mouth-pieces, that could play a bass and a treble at the same time; and pipes and rattles combined in the form of three human heads, support-

[1] i. p. 336.

[2] See Fig. 9.

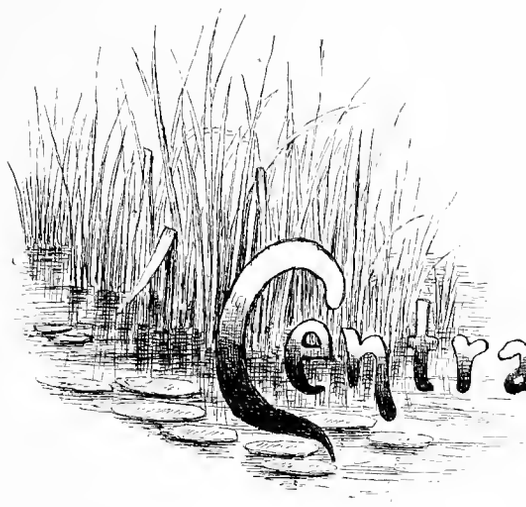
[3] A reference is probably intended to the Hsüan or Ocarina. (See p. 44.)

ing a pedestal—the pedestal was the pipe, and the heads, which were filled with stones, were the rattles."

This passage will give the reader some idea of the wealth of invention displayed by the Aztecs in the construction of their musical instruments. It is to be hoped that the interesting place occupied by this extraordinary people in musical history may soon be recognized by American students, and that our musical literature may speedily be enriched by a monograph on Aztec music worthy of the importance of the subject.

It is unnecessary to add anything here as to the musical instruments used by the negroes of Cuba, and of the West Indies generally. These are principally drums and rattles of various kinds. Some of the most important forms are shown in the Catalogue, to which the reader is referred for a sufficient description.

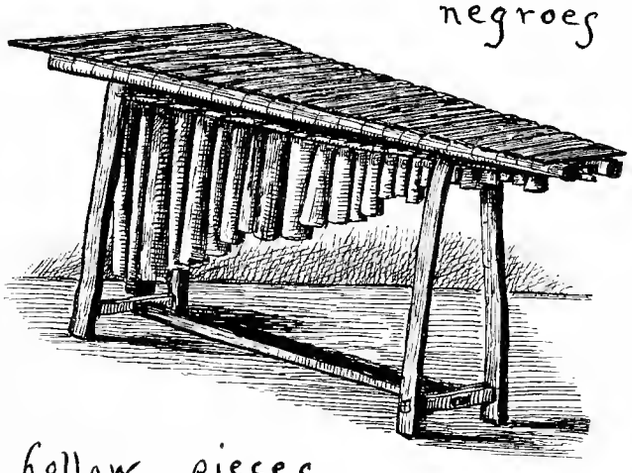
CENTRAL AND SOUTH AMERICA, AND OCEANICA.

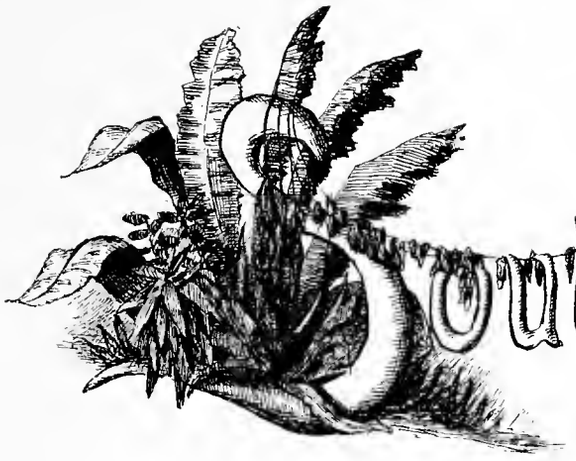


Central America

1. Rattle A gourd, with handle of bone. The body contains a few seeds. Used by the Indians of eastern Costa Rica. L. 8 in

2. Marimba A favorite instrument among the negroes of Guatemala, by whom it is said to have been introduced from Africa. Has 28 wooden keys, beneath which are placed hollow pieces of wood, to increase the resonance. Played with rubber tipped hammers, three persons often performing at the same time. L. 6 ft. 8. in. H. 2 ft. 8 in. Keys vary from 18 to 8 in.





South America

1. Rattle-Box. A rude wooden box, filled with seeds, in the interior of which a number of wooden pins are crossed at right angles, so as to produce the sound. Used by the Indians to accompany singing and dancing. Andes, United States of Colombia

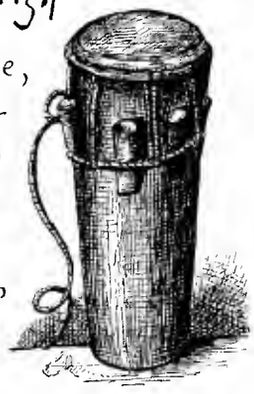
2. Pandean Pipes. 14 reeds varying in length from 5ft. 10 in. to 4ft. 2½ in, set in a hollow piece of wood, and bound together with withes. British Guiana.

3. Flute, made of a bit of bone, hollowed. 3 finger-holes L. 8 in. British Guiana.

(3)

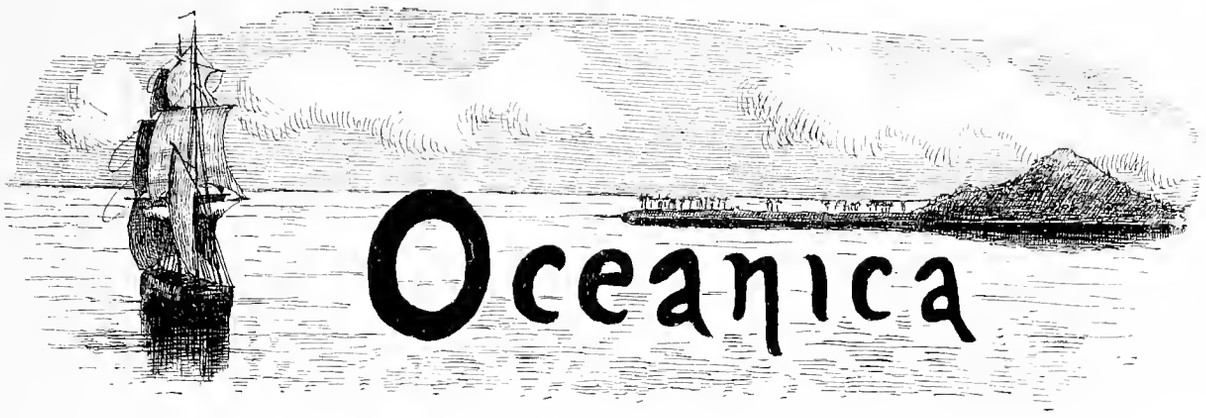
(4)

4. El Pito Fife. Made by the Indians near Carthagena, Colombia



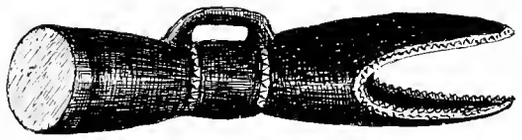
4 finger-holes. L. 11½ in.

5. Tambean. Drum, made by the Indians near Carthagena. The body, a piece of cork wood, hollowed. The rope of bark. H. 20 in D. 8 in.



Oceanica

1 Arpa. Drum.
Wood, shaped in imitation of the head and jaws of the crocodile. Furnished with a handle of wood. The head covered with snake skin.
L. 31 in. D. 6 in. Gulf of Papua, New Guinea.



2. Mbita ni Tangi. Nose Flute. Bamboo, ornamented with charred lines, figures, etc. Five holes in front at considerable intervals, and one on each side opposite the middle hole.
L. 27½ in D. 1¾ in. Fiji Islands, where the use of the instrument has been introduced from India.

3. Conch Shell. The primitive type of the trumpet.

XVIII.

INSTRUMENTS OF CENTRAL AND SOUTH AMERICA AND OCEANICA.

THE subject of the musical instruments of South America, Australia, and the various islands of the Pacific has never been satisfactorily treated. Indeed, I doubt whether the materials for such a treatment are in existence. It would be necessary to gather the requisite information from a very large number of scattered, inaccurate, and insufficient sources. The time at the writer's disposal has been so limited as to render such an attempt out of the question. I shall, therefore, add to the general statements made in the chapter on savage music only such special facts as may seem necessary in further explanation of the drawings in the Catalogue.

The native instruments of Central America, like those of Mexico, are chiefly drums, rattles, whistles, and flutes. A small rattle from Costa Rica is shown in Fig. 1. This consists of a gourd filled with pebbles. The handle is made of a small bone, and is held in place by a cord of sinews. The Marimba (Fig. 2) has already been described. It is interesting as furnishing another case of the migration of a musical instrument from one part of the world to another. The Marimba, as we have seen, is an African instrument, yet it has been introduced by the negroes into Guatemala, where it is extremely popular, being looked upon by the natives as the national instrument.

The musical instruments of South America are many and varied. Like those of Mexico, they may be divided into three

classes: first, those of native origin; second, those of European introduction; and, third, the musical relics which have come down from the older civilization of Peru. These last resemble in character the remains of the Aztecs of Mexico. They consist principally of drums, rattles, pipes, flutes and whistles.[1] Singularly enough, the Peruvians, like the Chinese, seem to have employed stone for musical purposes. "The traveller G. T. Vigne," says Engel,[2] "saw among the Indian antiquities preserved in the town of Cuzco, in Peru, a musical instrument of green sonorous stone, about a foot long, and an inch and a half wide, flat-sided, pointed at both ends, and arched at the back, where it was about a quarter of an inch thick, whence it diminished to an edge, like the blade of a knife. . . . In the middle of the back was a small hole, through which a piece of string was passed; and when suspended and struck by any hard substance, a singularly musical note was produced."

The character of the instruments in present use among the natives of South America varies widely according to the tribe and the locality. The most important are drums, rattles, flutes, whistles, trumpets and Pandean pipes. A few representative specimens are shown in the Catalogue.

Fig. 5 represents an Indian drum from Carthagena, Colombia. It is made of a single piece of cork wood, hollowed and covered with a head of skin, which is held in place by a rope made of the bark of the same tree. A number of wooden wedges are inserted between this rope and the body of the drum, so that by pushing these in further the tension of the skin may be increased.

Fig. 4 shows a rude fife with four finger-holes, from the same locality. The mouth-piece is furnished with a tongue of split wood, after the fashion of the Syrian Mijwiz. (See Fig. 7, Syria.)

A curious rattle from one of the remote valleys of the Andes is shown in Fig. 1. This consists of a round wooden box, about

[1] For further information on this subject, see Engel: Musical Instruments, etc., p. 65, *seq.* [2] Ibid. p. 81.

nine inches long, in the interior of which a number of wooden pins are crossed at right angles, in such a way as to obstruct the free motion of the seed with which the box is filled. It is used to accompany singing and dancing, and the effects produced by a skilful performer are said to be quite remarkable.

Fig. 3 shows a small wind instrument, made of a piece of hollowed bone. It has four finger-holes, and is ornamented with a number of carved lines.

One of the most important instruments of South America is the Syrinx, or Pandean pipes. This is a very ancient instrument, a number of specimens having been discovered among the relics of the early Peruvians. The name given by them to this instrument was *Huayra-puhura*. Two interesting specimens are described by Engel.[1] The first consists of "fourteen reed pipes, of a brownish color, tied together in two rows by means of thread so as to form a double set of seven reeds. Both sets are almost exactly of the same dimension, and are placed side by side. The shortest of these reeds measure three inches, and the longest six and a half inches. In one set they are open at the bottom, and in the other they are closed. Consequently octaves are produced." The range of each set of pipes is ten notes. The other specimen is still more interesting. This is made of "a greenish stone, which is a species of talc. It contains eight pipes. . . . Its height is five and three-eighths inches, and its width six and a quarter inches. Four of the tubes have small lateral finger-holes, which, when closed, lower the pitch a semi-tone. These holes are on the second, fourth, sixth and seventh pipe. . . . The other tubes have unalterable tones."[2] The following is the succession of notes produced: E, F, F♯, G, G♯, A, C, C♯, D, E, F, A.

Very different in character is the modern specimen from British Guiana, shown in Fig. 2. This consists of fourteen reed

[1] p. 70. [2] Ibid.

pipes, arranged in sets of two, and varying in length from four feet two inches to five feet ten inches. These are set in a hollowed and rounded piece of wood, one end of which is furnished with a hole for the breath. The hands of the performer rest against the sides of this, while the fingers cover a series of small holes in the pipes, just above the wooden handle. The instrument is held and played like the Chinese Chêng. As has already been remarked,[1] a form almost identical is found in the north of Siam and in Laos.

The wooden trumpets of the different Indian tribes of South America have been already more than once referred to. Although no specimen is represented in the Catalogue, I may mention particularly the *Botuto*, the *Juruparis* and the *Turé*. The first is used by a number of tribes in the vicinity of the Orinoco, and is regarded as an object of great veneration. "To be initiated into the mysteries of the Botuto," says Humboldt,[2] "it is requisite to be of pure morals, and to have lived single. The initiated are subjected to flagellations, fastings, and other painful exercises." The number of these sacred trumpets, however, is very small. The Juruparis has already been described in another connection. The Turé is common to many Indian tribes on the river Amazon, who use it chiefly in war. "It is made of a long and thick bamboo, and there is a split reed in the mouth-piece. It therefore partakes rather of the nature of an oboe or clarionet. Its tone is described as loud and harsh. The Turé is especially used by the sentinels of predatory hordes, who, mounted on a lofty tree, give the signal of attack to their comrades."[3] The conch is also used as a trumpet by many South American tribes.

I need add but a word as to the three specimens catalogued under the head of Oceanica. The first is a hand-drum from the Gulf of Papua, New Guinea. The Papuans possess both wind instruments and instruments of percussion, the forms of many of

[1] p. 138. [2] Quoted by Engel, p. 75. [3] Engel, p. 73.

which are quite elaborate. The drum (Fig. 1) is a case in point. It is carved out of a single piece of wood, and represents the head and jaws of the crocodile. The head is made of snake skin. It is about two feet and a half long, and is held by a wooden handle in the centre.

Fig. 2 represents a nose-flute from Fiji. It is twenty-seven inches long and about two inches in diameter, and is pierced with six small holes, five in front and one at the back. Of the former, one is situated at each end, and the other three at nearly equal distances between the two. It is ornamented with a number of charred lines and figures of various kinds. The origin of the nose-flute has already been explained. It ought, however, in fairness to be said, that while the theory given seems to the present writer the most probable one, opinions are divided on the question. Mr. Rowbotham, for instance, believes the nose-flute to be indigenous to the many islands where it is now found, and bases upon the fact of its wide diffusion the somewhat remarkable theory that the flute was first played through the nose.[1] But whatever may be the correct explanation of the origin of the nose-flute, it is certainly one of the commonest instruments among the islanders of the Pacific. I quote from Ellis,[2] the following interesting description of its form as found in the Sandwich Islands: "The *Vivo* or flute," he says, "was the most agreeable instrument used by the islanders. It was usually a bamboo cane, about an inch in diameter, and twelve or eighteen inches long. The joint in the cane formed one end of the flute; the aperture through which it was blown was close to the end; it seldom had more than four other holes, three on the upper side covered with the fingers, and one beneath, against which the thumb was placed. Sometimes, however, there were four holes on the upper side. It was occasionally plain, but more frequently ornamented by being partially scorched, or burned with a hot stone, or having fine and

[1] i. p. 60.

[2] Polynesian Researches, i. p. 197.

beautifully plaited strings of human hair wound round it, alternately with rings of braided sennit. It was not blown from the mouth, but the nostril. The performer usually placed the thumb of the right hand upon the right nostril, applied the aperture of the flute, which he held with the fingers of his right hand, to the other nostril, and, moving his fingers on the holes, produced his music. The sound was soft and not unpleasant, though the notes were few; it was generally played in a plaintive strain, though frequently used as an accompaniment to their *pehes*, or songs."

The conch trumpet (Fig. 3) has already been so often referred to that it may seem unnecessary to linger over it here. I venture, however, to quote from Ellis the following description of a variation of the common form, which is found among the Sandwich Islanders. "The largest shells," he says, "were usually selected for this purpose, and were sometimes above a foot in length, and seven or eight inches in diameter at the mouth. In order to facilitate the blowing of this trumpet, they made a perforation about an inch in diameter, near the apex of the shell. Into this they inserted a bamboo cane about three feet in length, which was secured by binding it to the shell with fine braid; the aperture was rendered air-tight by cementing the outsides of it with a resinous gum from the bread-fruit tree. These shells were blown when a procession walked to the temple, or their warriors marched to battle, at the inauguration of the king, during the worship of the temple, or when a tabu or restriction was imposed in the name of the gods. . . . The sound is extremely loud, but the most monotonous and dismal that it is possible to imagine."[1]

Here I must bring this short chapter to a close. I cannot, however, refrain from repeating in this place the hope already expressed, that the rich field which I have been able to sketch only in outline may soon receive the attention of competent and

[1] Ellis, i p. 196.

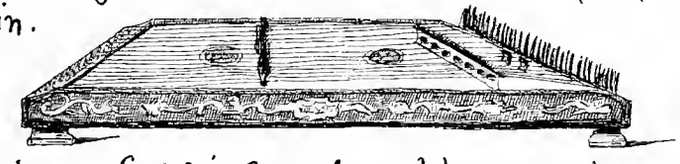
scholarly investigators. When the subject of savage music shall have been conscientiously studied and definite results obtained, I feel confident that no branch of anthropological science will be found more full of suggestion and interest, not only to the special musical student, but to all those who are interested in the history of art, of civilization, and of humanity.

EUROPE.

Europe

1. Lute. Probably Dutch. An old specimen. The head inlaid with ivory and decorated with tortoise shell. Probably originally strung with 13 strings, though the hole of one of the Keys has been stopped up. L. 3 ft. W. 14 3/4 in

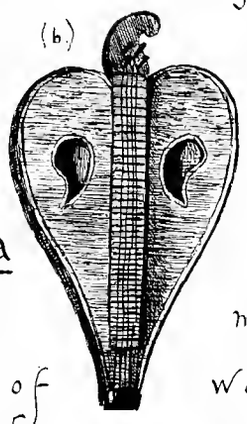
2. Violin Modern. From the Hardanger Fjord, Norway. The body yellow in color. Strung in addition to the four usual strings, with four thin strings of wire passing beneath the bridge, and vibrating in sympathy with the others L. 22 in. D. 7 in.



3. Clarionet, Swedish. An old specimen. L. 21 in.

4. Dulcimer. Country unKnown strung with 26 sets of 3 wire strings. Ornamented in red and gilt. L. 30, W. 14 in

5. Streichzither. Austria. Modern. Strung with 4 wire strings. Rests horizontally upon a table, and is played with a bow. L. 19 in. W. 10½ in. Th. 1⅛ in.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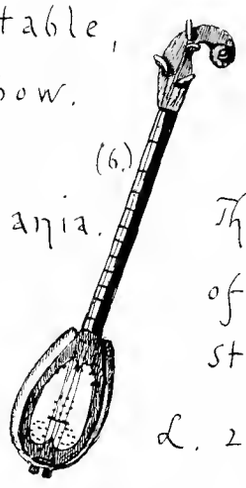
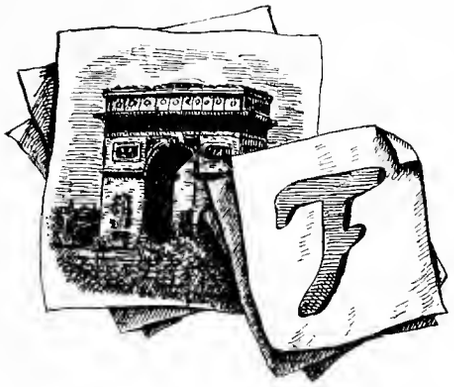
6. Tambouritza Roumania. The body and handle made of three different kinds of wood strung with 4 wire strings. Modern. L. 23 in W. 4½ in. Th. 2½ in


(b.)

7. Bagpipe. Sclavonia. A very old specimen. The pipes of wood, inlaid with lead. The bag of leather. L. of longest pipe. 45 in., of bag 24 in.

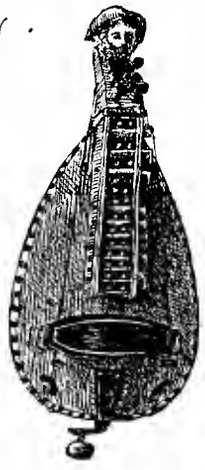
8. Mountain Horn. Swiss. Modern. Made of wood. L. 7 ft. 3 in. D. of mouth 5¼ in.

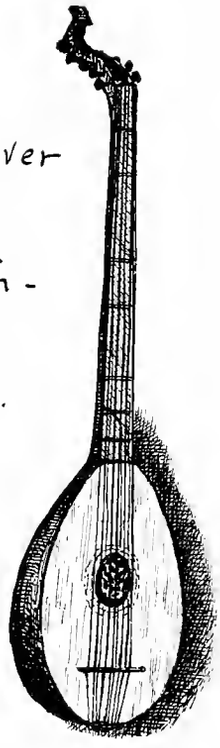
9. Bagpipe. Scotch. Modern L. of longest pipe 3 ft. 1 in., of bag 1 ft. 3 in.



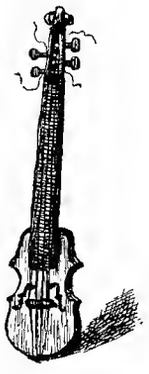
France

1. Vielle, Hurdy-gurdy. Of the time of Louis XVI. The tones given by the revolution of the wheel over the strings. According to Rousseau the use of this instrument dates from the XI[R] century. L. 25 in. W. 11 in. 6 strings.





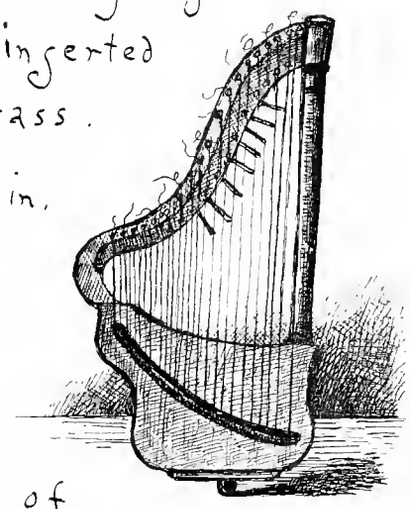
2. Archilute Has 14 wire strings. Ancient. L. 4 ft. 8 in. W. 13½ in.



3. Pochette, or dancing-master's violin. Ancient. L. 14 in. W 3½ in. So-called from the fact that it was often carried in the pocket. Played with a bow.

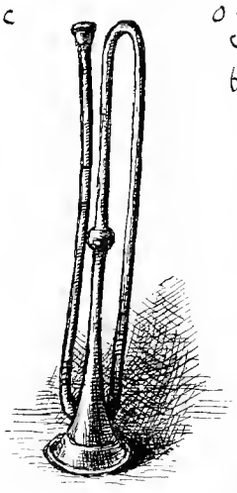
4. Tambour, Drum. One of the three characteristic instruments of Provence. H. 21 in. D. 13 in.

5. Harpe. Ancient. Maker's name, Pfeiffer and Brimmeyr. Strung with 29 strings in all, 24 of gut, and 5 of silk covered with wire. The body of light wood, the keys being ingerted in a plate of brass.
H. 3 ft. Greatest W. 19 in.



6. Tambourin à Cordes. Like the drum, this instrument is characteristic of Provence. The body is of unvarnished wood, strung with six coarse cords L. 3 ft. 2 in. W. 6 in.

7. Trompette, very old - time of Louis XIII. L. 2 ft 3 in.



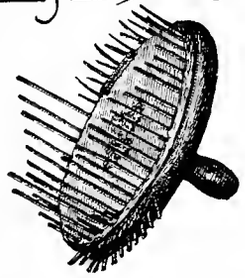
8 Flute Palissy, a small flageolet. of china L. 12 in.

9. Viole d'Amour. Ancient. Has five strings, three of gut and two of silk covered with wire, but was probably originally strung with wire strings (See Engel, Catalogue of South Kensington, p. 340, Hipkins, Musical Instruments, p. 54.) The body almost black with age. L. 2 ft. W. 7 in

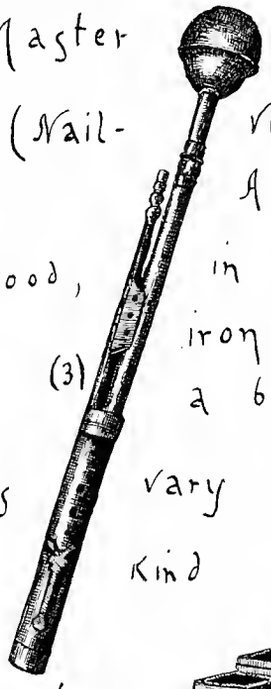
Germany

1. Taschengeige (Pochette) Once the property of a Dancing-Master of the XVIIIth Century
L. 18½ in. W. 2 in.

2. Nagelgeige (Nail-violin) (1) A circular frame of wood, in which are set 66 iron pins Played with a bow.

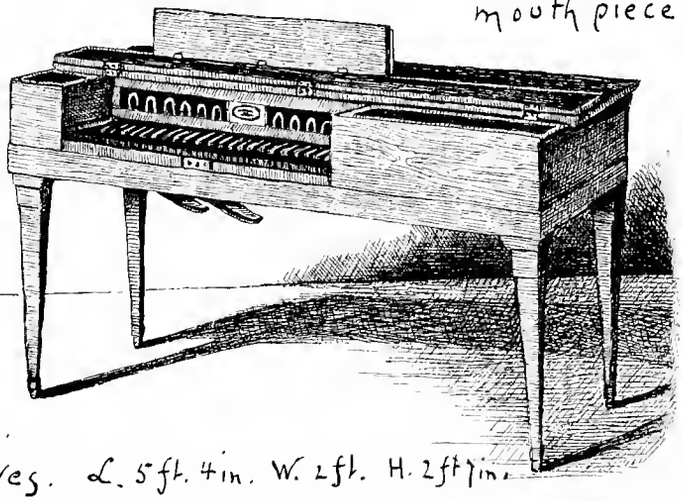


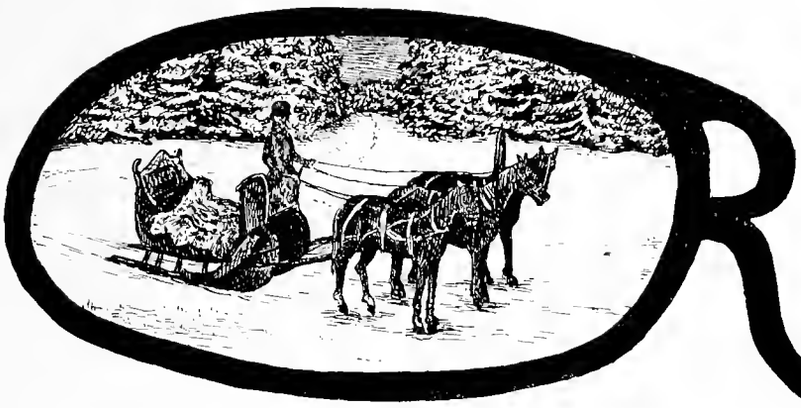
D. 12 in. Pins vary from ½ in. to 4¾ in.



3. Fagott, a Kind of Bassoon Ancient. Wood with end, mouth piece and Key of brass
L. 3 ft. 9 in. W. 2½ in.

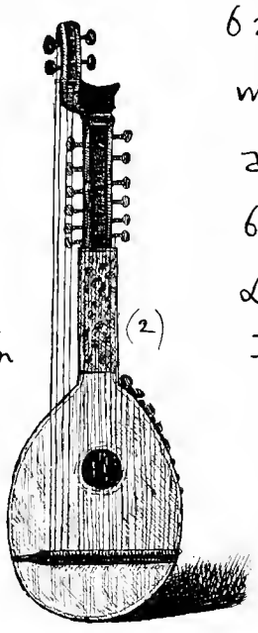
4 Clavichord. Made by Anton Vatter of Vienna. Probably of the XVIIIth Century.
Range, five octaves. L. 5 ft. 4 in. W. 2 ft. H. 2 ft 9 in.



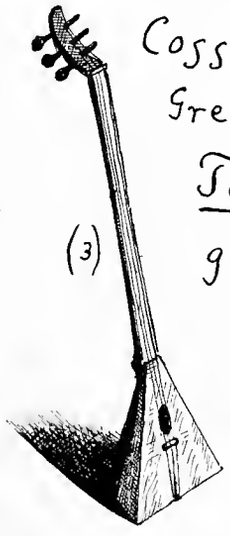


Russia

1. Balaläika, a rude guitar, with four triangular shape; the body, of four triangular shape; the back round- (1) ed. The face of white wood, the back painted red, and the handle black. Used by the Cossacks. Greatest W. 10½ in. L 26½ in. Depth 4 in.

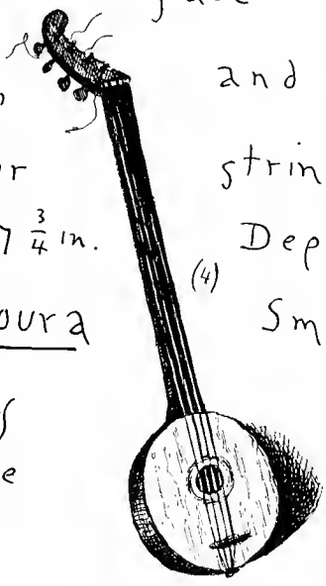


2. Torban. Thirty strings of gut and wire (14 from side, 12 from handle, and 4 from projection above handle) The body oval, of a rich reddish wood. The handle inlaid. L. 3 ft. 10 in; W. 14½ in; Depth 6½ in.



3. Balaläika. Rude specimen, unpainted. Three strings. Used by the Russian peasants. L. 27 in. Greatest W. 8 in.

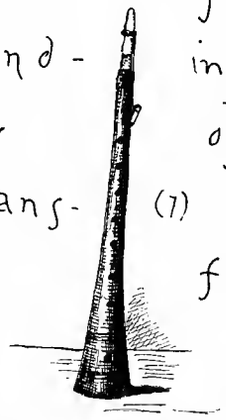
4. Balaläika Cossack. The body round. The face of white wood, the back red, and the handle black. Four strings of gut. L. 28½ in. W. 7¾ in. Depth. 3 in.


(4)

(5)

5. Tamboura Small specimen, the body pear shaped. Four wire strings tuned in pairs. Frets of gut. L. 29½ in. W. 5¾ in. Depth 5 in. Tiflis. Played with a plectrum of wood.

6. Instrument of the Guitar family, corresponding to the Tar of Persia. The body of wood, the head of transparent skin. (7) Six wire strings, four of brass and two of steel. The handle inlaid with mother of pearl. Plectrum of wax and brass. L. 34 in. W. 7 in. Th. 6½ in. Tiflis.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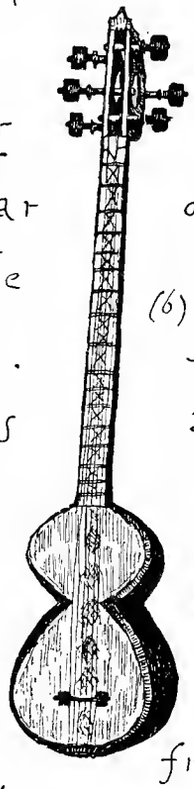
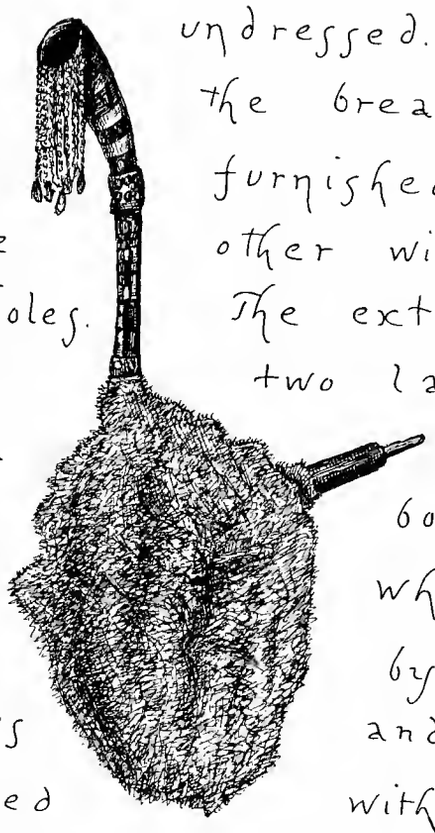

(6)

7. Oboe. Body of dark wood. 8 finger holes in front and one behind. Movable headpiece. by which first and third holes may be closed. L. 15½ in

8. Bagpipe. The bag made of white skin, undressed. Three pipes, one for the breath, and the other two furnished, one with six, and the other with three fingerholes. The extremities of the two latter covered with a cap of wood bound with brass, which is held in place by a leather strap. The pipes and movable cap decorated with imitations of precious stones, and the latter with nineteen small hanging chains. Bag 18×13 in. L. of pipes and cap 17 in.



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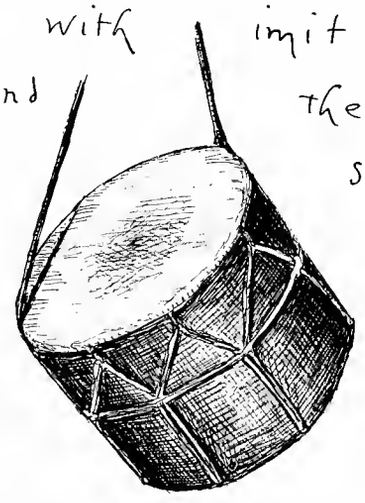
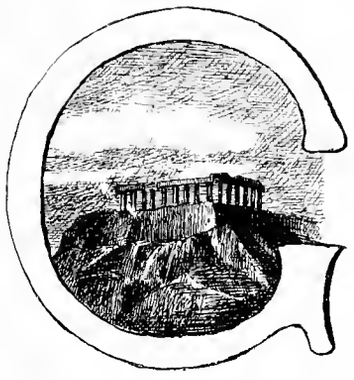
(10)



9. Oboe. 8 finger holes in front, and one behind at the base L. 13½ in.

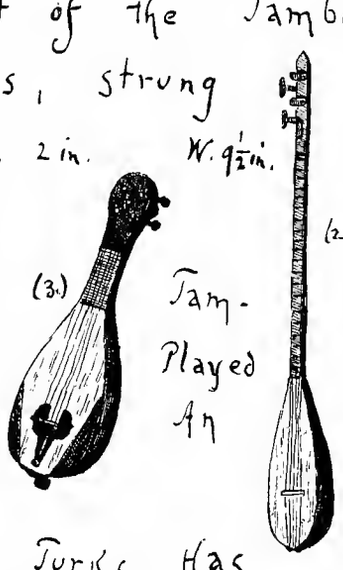
10. Flageolet. 6 holes in front and one behind. L. 9½ in.

11. Drum. H 11 in. D. 14 in. Drumsticks 14½ and 11 in



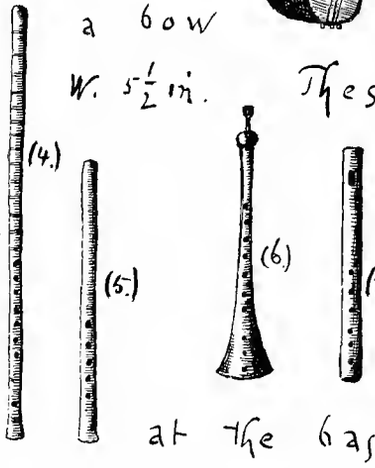
Greece

1. Cavónto, an instrument of the Tamboura family. Has 6 wire strings, strung in 3 sets of 2 each. L. 3 ft. 2 in. W. 9½ in. Played with a quill.



2. Bouzouki, a small Tam- boura. Has 5 wire strings. Played with a quill. L. 2 ft. 5 in. W 4 in. An old specimen.

3. Lyra, a violin, the Kemangeh of the Turks. Has 5 gut strings. Played with a bow of white horsehair. L. 19 in. W. 5½ in. Thessaly.

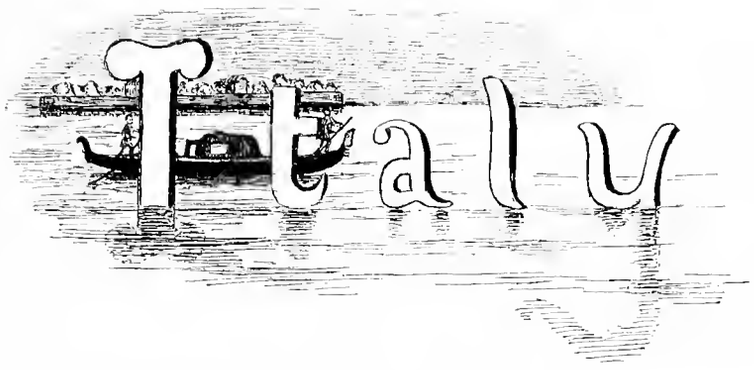


4. Flute. 8 holes in front, 2 behind, and 2 at the side. L. 30 in. D. 1 in.

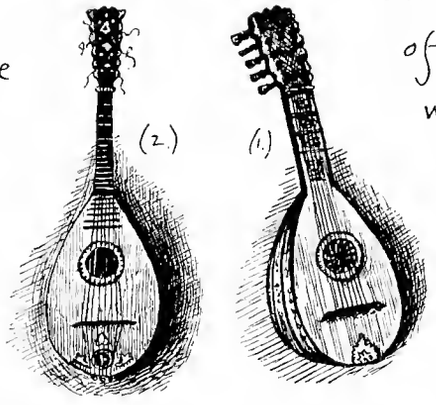
5. Flute. 5 finger-holes. L. 19½ in.

6. Clarionet. The Turkish Zourna 8 finger-holes, and 1 holes at the base. L. 15 in

7. Floyera, or shepherd's pipe. A flageolet. L. 12 in. Thessaly

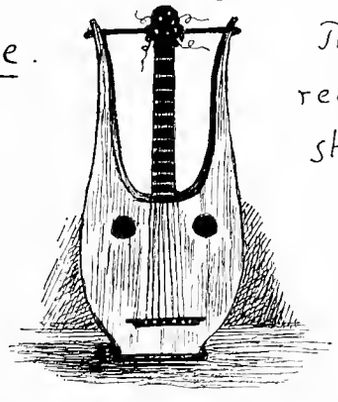


1. Mandolin. The back, handle and parts of the face of ivory, beautifully decorated with little figures playing musical instruments. Has the following inscription:- "Catastro Parochiak fectum anno 1620 in Padova." 5 pairs of wire strings. L. 1ft. 9½ in. D. 6¼ in.



2. Mandolin. Inlaid with mother of pearl. Inscription:- "Gio. Battista fecit Neapoli 1712." 4 pairs of wire strings. L. 1ft. 10 in. D. 6½ in.

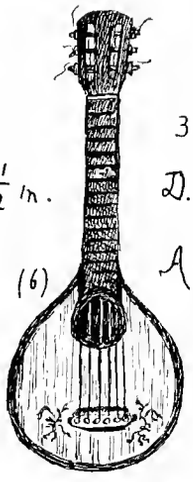
3. Lyre. The body of a reddish wood. 6 gut strings. Florence.



4. Serpentine. a very old specimen. Wood covered with leather. 6 finger-holes. The brass mouthpiece has been lost. H. 2ft. 9 in. Florence.

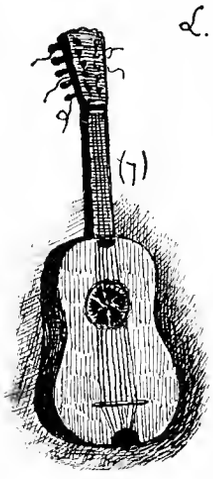
5. Mandolin. Inlaid with mother of pearl, with a tortoise shell plate across the face. Strung with 3 pairs of wire and 3 of gut strings. L. 21½ in. D. 8 in.

(5)


(6)

6. Terzina. A fine specimen, with the following inscription.

"Gennaro Fab- ricatore Anno 1802 Napoli." Strung like the modern guitar, but tuned a third higher. L. 23 in. D. 10 in.


(7)

7. Guitar Battente (Chitarra Battente) 5 pairs of wire strings. L. 31½ in. W. 8½ in. Th. 5 in. An old specimen. Florence.

(8)

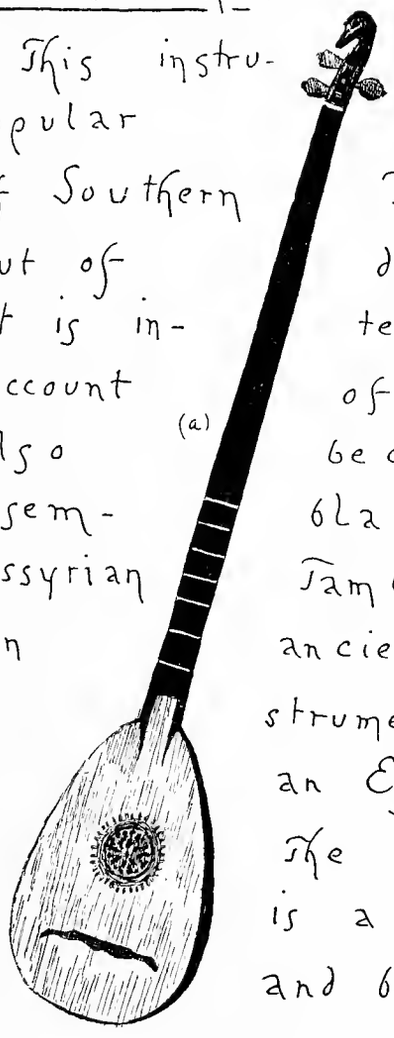
8. Guitar Battente 5 pairs of wire strings. Modern. Used by the peasants of Apulia.

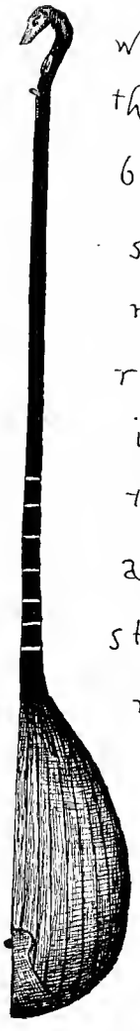
L. 35 in.
W. 11 in.

9. Shepherd's Pipe. 6 finger holes L. 8½ in Apulia 9½ in.

10. Harp 31 strings. H. 4 ft. W. 2 ft. 2 in. Used by the Savoyards. Modern.

11. Calascione.


(a)


(b)

(c)

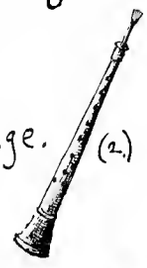
This instrument was formerly popular among the peasants of Southern Italy, but has been out of date for seventy years It is interesting, not only on account of its rarity, but also because of its resemblance to the Tamboura and Assyrian an ancient stringed instrument represented on an Egyptian obelisk. The present specimen is a very perfect and beautiful one.

Fig a shows the front view; b the side; and c the headpiece enlarged. Length: 4 ft. $10\frac{1}{2}$ in. Greatest Width: $11\frac{1}{2}$ in. Depth: $5\frac{1}{2}$ in Body of a beautiful reddish wood. The three wire strings are wanting.

Spain

1. Mandora, an instrument of the guitar family. Has 6 pairs of wire strings. The wood of the body yellow with age. L. 28 in. W. 11 in.

(1.)


(2.)

2. Clarionet. Modern. Valencia. L. 14 in.
3. Tambourine. Modern. Valencia D. 10 in. H. 7 in.

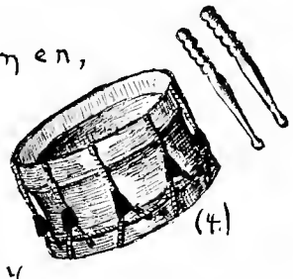
(3.)

D 11 in.

4. Drum. Modern. Valencia.
5. Castanets. Modern. D 2 in.

(5.)

6. Psaltery. A fine old specimen, said to have come from a monastery in Navarre. Several hundred years old. Strung with 150 wire strings in sets respectively of 5 and 6. Painted in blue and gilt, and ornamented with flowers. L. 3 ft. 3 in. W. 14 in. Th. 3 in.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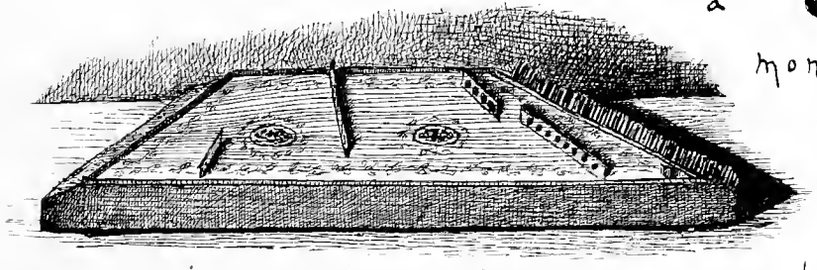
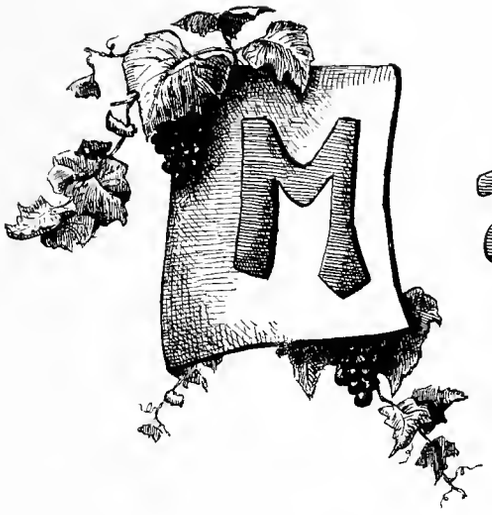




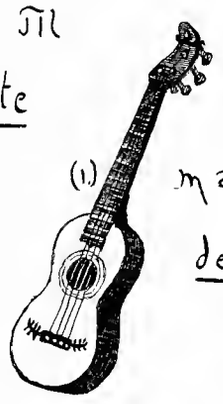
Madeira

1. Machête de Braga. A small guitar, made of old Til wood. 4 gut strings. L. 20 in W. 5 in

2. Machête Rajaô. Made of mahogany. 5 gut strings. Spanish L. 26 in W. 8 in.

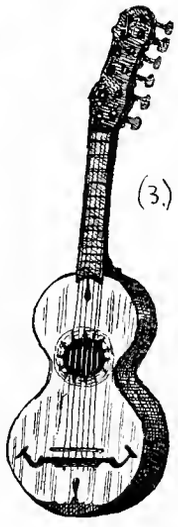
3. Viola de Arame. Made of Madeira cedar. Has 6 pairs of wire strings. L. 34½ in. W. 10 in.

4. Viola Franceza of Til wood. 3 of wire L. 37 in. or Spanish guitar. Made Has 6 strings, and 3 of gut. W. 11 in

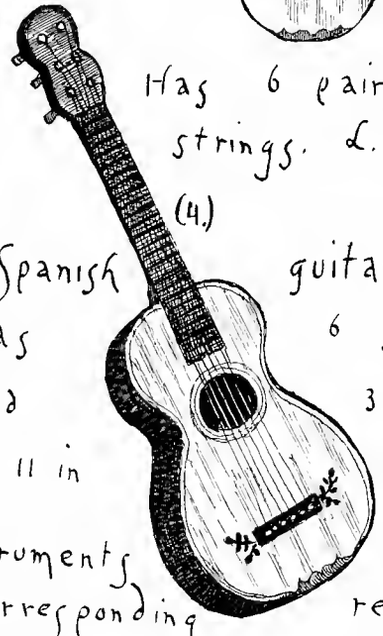


(1.)

(2.)



(3.)



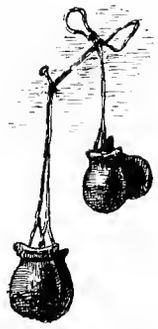
(4.)

The above four instruments form a perfect quartet corresponding respectively to first and second violins, Viola and Cello.

5. Guitarra. Made of very old Til wood (Laurus Foeteus) in pairs. Has 12 wire strings, strung

L. 2 ft. 1 in. W. 11 in.

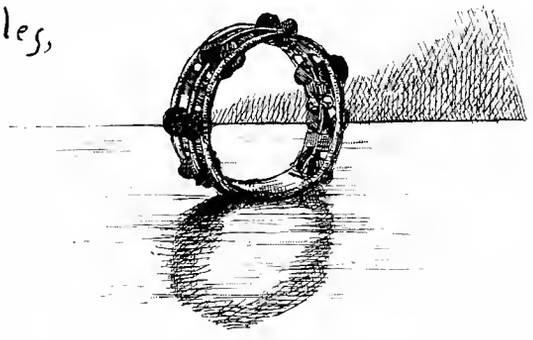
6. Castanholas - Castanets.



These are made of very old Til wood, and are of great age. D. 1 3/4 in.

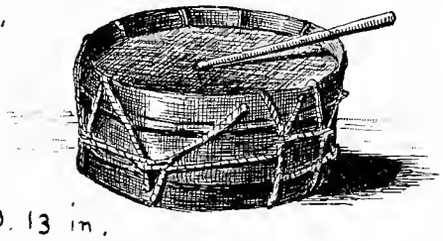
7. Pandeiro. Tambourine.

A wooden frame in which are inserted copper jingles, among which are several old Portuguese coins. D. 8 in.



Teneriffe

1. Tamboril, a small flat drum, played with a single drumstick.



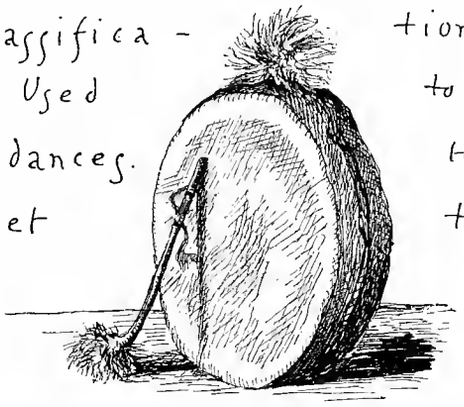
H 6 in. D. 13 in.

2. Pito Pastoril - Shepherd's pipe. Wood, with mouth-piece of lead. Two holes in front and one in the rear, near the base. L. 1 ft. 4 1/2 in. D. 1 in.

MISCELLANEOUS.

Miscellaneous

1. Drum. North American Indian. Sioux or Dakota Received too late for proper classification. D. 17 in. H. $4\frac{3}{4}$ in. Used to accompany dances. Has a very sweet tone



2. Rattle

A rude wooden box filled with seeds, fastened to a long stick decorated with feathers. L. 42 in. L. of box 11 in., W. $2\frac{1}{2}$ in. Used in religious ceremonies. Rasbonisky, Alaska. Received too late for proper classification.

3. Flute. 6 fingerholes and one brass key. New England. A very old specimen. L. $19\frac{3}{4}$ in.

4. Clarionet. New England. An old specimen. L. 26 in.

LIST OF AUTHORITIES.

Ambros (A. W.). Geschichte der Musik. Dritter ganzlich umgearbeitete Auflage. Vol. I. Leipzig, 1887.

Amiot (Joseph). De la Musique des Chinois, tant anciens que modernes. 4to. Paris, 1780. Vol. VI. of Mémoires concernant l'histoire, les sciences, les arts, les mœurs, les usages, etc., des Chinois, par les missionaires de Pekin.

—— Sur les Pierres Sonores. Appendix to his treatise "De la Musique des Chinois." Paris, 1780.

Anonymous. Japanese Music and Musical Instruments. *Musical Herald*, April, May, June, and July, 1887, Boston.

—— Notes on Siamese Musical Instruments. London, 1885.

Barrow (John). Travels in China. London, 1804.

Bird (Isabella L.). Unbeaten Tracks in Japan: an Account of Travels on Horseback in the Interior. 2 vols. New York, no date.

Bird (William Hamilton). The Oriental Miscellany; being a Collection of the most Favorite Airs of Hindostan, compiled and adapted for the Harpsichord, etc. Calcutta, 1789.

Bowdich (T. Edward). Mission from Cape Coast Castle to Ashantee. London, 1819.

Burton (Richard F.). The Lake Regions of Central Africa. 2 vols. London, 1860.

—— Wanderings in West Africa from Liverpool to Fernando Po, by a F. R. G. S. 2 vols. London, 1863.

Catlin (George). Illustrations of the Manners and Condition of the North American Indians; with Letters and Notes, etc., during eight years of Travel and Adventure. 2 vols. London, 1857.

Chapman (James). Travels in the Interior of South Africa. 2 vols. London, 1868.

Clément (Félix). Histoire de la Musique, depuis les temps les plus anciens jusqu'à nos jours. Paris, 1885.

Cranz (David). Historie von Grönland, enthaltend die Beschreibung des Landes und der Einwohner, etc.; insbesondere die Geschichte der dortigen Mission der Evangelischen Brüder in Neu-Herrnhut und Lichtenfels. Barby und Leipzig, 1765.

Daniel (F. Salvador). La Musique Arabe, ses rapports avec la Musique Grecque et le Chant Grégorien. Algiers, 1863.

Domenech (Abbé Em.). Seven Years' Residence in the Great Deserts of North America. 2 vols. London, 1860.

Eastlake (F. Warrington). Article on the Shêng, *China Review*, August, 1882.

Ellis (Alexander J.). Appendix to a paper on "The Musical Scales of Various Nations," published in the *Journal of the Society of Arts*, Oct. 30, 1885. London.

Ellis (William). Polynesian Researches during a Residence of nearly Eight Years in the Society and Sandwich Islands. Second edition. 4 vols. London, 1832–1836.

Elson (Louis C.). Curiosities of Music: a Collection of Facts not generally known regarding the Music of Ancient and Savage Nations. Boston, 1880.

Engel (Carl). An Introduction to the Study of National Music. London, 1866.

—— Descriptive Catalogue of the Musical Instruments in the South Kensington Museum. Second edition. London, 1874.

—— Musical Myths and Facts. 2 vols. London, 1876.

—— Researches into the Early History of the Violin Family. London, 1883.

—— The Music of the most Ancient Nations, particularly of the Assyrians, Egyptians, and Hebrews. London, 1864.

Fétis (F. J.) Histoire Générale de la Musique, depuis les temps les plus anciens jusqu'à nos jours. 5 vols. Paris, 1869.

Forbes (Frederick E.). Dahomey and the Dahomans; being the Journals of two Missions to the King of Dahomey, and Residence at his Capital in the years 1849 and 1850. 2 vols. London, 1851.

Fowke (Francis). On the Vina, or Indian Lyre (pp. 193–197 in Tagore's "Hindu Music from Various Authors").

Grey (George). Journals of Two Expeditions of Discovery in North-western and Western Australia, during the years 1837, 1838, and 1839. 2 vols. London, 1841.

Hipkins (A. J.). Musical Instruments, Historic, Rare, and Unique. Folio. Edinburgh, 1888.

Isawa (S.). Extracts from the Report of S. Isawa, Director of the Institute of Music, on the Result of the Investigations concerning Music, undertaken by order of the Department of Education. Tokio, no date.

Jones (Sir William). On the Musical Modes of the Hindus (pp. 125–160 in Tagore's "Hindu Music from Various Authors").

Kiesewetter (R. G.). Die Musik der Araber nach Originalquellen dargestellt. Leipzig, 1842.

Kraus (Alexandre, fils). Di Alcuni Strumenti Musicali della Micronesia e della Melanesia, regalati al Museo Nazionale d'Antropologia e di Etnologia dal Dott. Otto Finsch. Estratto dall' *Archivio per l'Antropologia e la Etnologia*, Vol. XVII., Fascicolo 1°, 1887.

—— La Musique au Japon. 2me édition. Florence, 1879.

Lane (Edward William). An Account of the Manners and Customs of the Modern Egyptians. Fifth edition, edited by his nephew, Edward Stanley Poole. 2 vols. London, 1871.

—— The Thousand and One Nights, commonly called in England The Arabian Nights' Entertainments. A new translation from the Arabic, with copious notes. A new edition, edited by Edward Stanley Poole. 3 vols. London, 1883.

Lay (G. Tradescant). The Chinese as they are: their Moral, Social, and Literary Character. London, 1841.

Long (Charles Chaillé). Central Africa: Naked Truths about Naked People. An account of expeditions to the Lake Victoria Nyanza, etc. London, 1876.

Naumann (Emil). The History of Music. Translated by F. Praeger. Edited by the Rev. Sir F. A. Gore Ouseley, Bart. 2 vols. London, no date.

Ouseley (Sir William). Travels in Various Countries of the East, more particularly Persia. 3 vols. London, 1819.

Palmer (E. H.). The Qur'ân. Translated by. 2 vols. (Vols. VI. and IX. in Max Müller's "Sacred Books of the East.") London, 1880.

Rowbotham (John Frederick). A History of Music. 3 vols. London, 1885.

Schoolcraft (Henry R.). Information respecting the History, Condition, and Prospects of the Indian Tribes of the United States; collected and prepared under the Bureau of Indian Affairs. Published by authority of Congress. 6 vols., 4to. Philadelphia, 1860.

—— The Indian in his Wigwam; or, Characteristics of the Red Race of America. From original Notes and Manuscripts. New York, 1848.

Schwatka (Frederick). Among the Apaches. *Century Magazine*, May, 1887. New York.

Schweinfurth (Georg). The Heart of Africa: Three Years' Travels and Adventures in the Unexplored Regions of Central Africa, from 1868 to 1871. Translated by Ellen E. Frewer. 2 vols. New York, 1874.

Siebold (Ph. Fr. von). Nippon; Archiv zur Beschreibung von Japan und dessen neben, und Schutsländern, etc. 2 vols. 4to, with 2 vols. fol. of plates (Part IV. plates i.–xii., inclusive, on Japanese musical instruments). Leyden, 1832.

Solvyns (Balt.). The Costume of Indostan, elucidated by sixty colored engravings, with descriptions in English and French, taken in the years 1798 and 1799. Folio. London, 1830.

Speke (John Hanning). Journal of the Discovery of the Source of the Nile. Edinburgh and London, 1863.

Sproat (Gilbert Malcolm). Scenes and Studies of Savage Life. London, 1868.

Tagore (Rajah Sourindro Mohun). Hindu Music from Various Authors. Compiled by. Second edition. Calcutta, 1882.

—— Hindu Music. Reprinted from the *Hindu Patriot*, Sept. 7, 1874 (pp. 339–397 in Tagore's "Hindu Music from Various Authors").

—— Short Notices of Hindu Musical Instruments. Calcutta, 1877.

—— The Twenty-two Musical *Srutis* of the Hindus. Calcutta, 1882.

Taylor (Meadows). Description of a Collection of Indian Musical Instruments, presented to the Royal Irish Academy by Col. P. T. French (pp. 243–273 in "Tagore's Hindu Music from Various Authors").

Tylor (E. B.). The Study of Customs. *Macmillan's Magazine*, May, 1882. London.

Van Aalst (J. A.). Chinese Music. Shanghai and London, 1884.

Van Lennep (Henry J.). Bible Lands: their Modern Customs and Manners, illustrative of Scripture. New York, 1875.

Villoteau. Description Historique, Technique et Littéraire des Instrumens de Musique des Orientaux. Contained in Vol. XIII. of "Description de l'Égypte; ou, Recueil des Observations et des Recherches qui ont été faites en Égypte pendant l'expédition de l'armée française." 2me édition. Paris, 1823.

Willard (N. Augustus). A Treatise on the Music of Hindustan (pp. 1–122 in Tagore's "Hindu Music from Various Authors").

Williams (Thomas). Fiji and the Fijians. London, 1870.

Yoe (Shway). The Burman: his Life and Notions. 2 vols. London, 1882.

Yule (Henry). A Narrative of the Mission sent by the Governor-General of India to the Court of Ava. London, 1858.

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